NetworX

UL approved
for ANSI/SIA
CP-01-2000

# NetworX Series™
# NX-4 Control Panel

## Installation and Startup

© 2004 GE Security
All rights reserved.
Printed in the USA.

*These instructions do not purport to cover all details or variations in equipment nor to provide every possible contingency to be met during installation, operation, and maintenance. If further information is desired or if particular problems arise that are not covered sufficiently for the purchaser's purpose, the matter should be referred to GE Security, Gladewater, Texas, USA.*

*This document contains proprietary information of GE Security, USA and is furnished to its customer solely to assist that customer in the installation, testing, operations, and/or maintenance of the equipment described. This document shall not be reproduced in whole or in part nor shall its contents be disclosed to any third party without the written approval of GE Security.*

*Please refer to the current GE Security product catalog for detailed warranty information.*

| | | | |
|---|---|---|---|
| Main | 800-727-2339 | Technical Support | 800-727-2339 |
| Outside the US | 903-845-6941 | Tech Support Fax | 903-845-8409 |
| Main Fax | 903-845-6811 | Sales & Literature | 800-547-2556 |

www.caddx.com
www.ge-interlogix.com

NetworX™ is a trademark of the GE Security companies.

# NetworX NX-4
# Control/Communicator
# Installation Manual


Page

General Description ..... 2

Ordering Information ..... 2

Board Installation ..... 2

Feature Definitions ..... 3

Programming the LED Keypads ..... 8

Programming the NX-4 ..... 10

Types of Programming Data ..... 10

Enrolling the Modules & Keypads ..... 12

Communicator Formats ..... 13

Reporting Events to Phone #1, #2, & #3 ..... 13-15

Zone Doubling ..... 18

Programming the Outputs ..... 19-20

Standard Zone Types (Configurations) ..... 25

Programming Worksheets ..... 26-32

SIA and Contact ID Formats ..... 33-34

Expander Trouble Reporting Information ..... 35

Wiring Diagram ..... 36

Terminal Description ..... 37

Telephone Interface Information ..... 39

Underwriters Laboratories Information ..... 39

SIA / ANSI CP-01 Requirements ..... 41

Specifications ..... Back Page



**GE Security**
**1-800-727-2339**

## NX-4 Control

### GENERAL DESCRIPTION

The NetworX NX-4 represents a new approach to security systems design. Drawing on our experience in the world market as the largest exporter of USA manufactured controls we have developed the most flexible, durable, and user-friendly control ever seen in our industry. Featuring sophisticated software which allows up to 8 users to interface with 8 zones, and a host of integrated fire, access, verification, and input/output modules, all reported with the most comprehensive and fast SIA and Contact ID formats. The NetworX design allows a fully loaded system to be housed in one single metal enclosure, establishing for the first time, a logical solution and design response to modular systems. A maximum of 8 keypads and 1 other module (excluding hardwire) can be added to expand the capabilities of the NX-4 unit. For warranty information, please refer to the current GE Security Product Catalog.

### ORDERING INFORMATION

| PART # | DESCRIPTION | PART # | DESCRIPTION |
|---|---|---|---|
| NX-4-KIT | NX-4 Control, NX-108E LED Keypad, & 16.5V 40VA Transformer | NX-108E | 8 Zone LED Keypad |
| NX-4 | NX-4 Control Only | NX-116E | 16 Zone LED Keypad |
| NX-200 ** | Zone Doubling Kit (Includes 100 3.74k and 100 6.98k resistors) | NX-124E | 24 Zone LED Keypad |
| NX-320E | Smart Power Supply and Buss Extender | NX-148E | Alphanumeric LCD Keypad |
| NX-408E # | 8 Zone Wireless Expansion Module (UL LISTED PART #60-904) | NX-1192E | 192 Zone LCD Keypad |
| NX-416E # | 16 Zone Wireless Expansion Module (UL LISTED PART #60-904) | NX-1208E | 8 Zone LED Keypad |
| NX-448E # | 48 Zone Wireless Expansion Module (UL LISTED PART #60-904) | NX-1248E | 48 Zone LCD Keypad |
| NX-508E | Eight Output Module | NX-1308E | 8 Zone LED Door Design Keypad |
| NX-534E ** | Two-Way Listen In Module | NX-1316E | 16 Zone LED Door Design Keypad |
| NX-540E ** | "Operator II" Telephone Interface Module | NX-1324E | 24 Zone LED Door Design Keypad |
| NX-591E ** | Cellemetry Interface | NX-1448E | 48 Zone Fixed Language Icon Keypad |

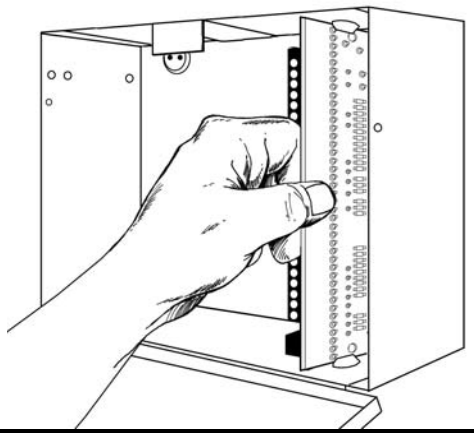
****** These products have not been tested and approved by Underwriters Laboratories, Inc.
**#** These wireless devices are only UL listed for residential applications.

### IMPORTANT NOTES

1. The maximum number of zones available is 8 regardless of devices added. Information regarding Zone Doubling is located on page 7.
2. The NX-4 control panel will send an "Expander Trouble" once each hour if it senses that no devices have been enrolled. This report will show "Expander Trouble" - device zero (0).

## BOARD INSTALLATION

The metal enclosure should be installed with the door opening from top to bottom. Refer to the diagram on the right.
Inside the can, there are four slots for board insertion, two on the top and two on the bottom of the can. These allow the PC board to be positioned vertically as shown in the diagram. When you slide the board between the grooves of the slots, make sure the terminal strip is toward the front for wire connections.



## FEATURE DEFINITIONS

### Abort

If enabled, the NX-4 will wait the programmed number of seconds in location 40 prior to sending an alarm. During this delay time, the "Cancel" LED will flash. To abort the report, type in a code and press the [Cancel] key. The LED will extinguish. If the report is not aborted within the allotted time, the LED will extinguish when the report is sent. **(Loc. 40 and 110-149, pages 18 and 24)**

### AC Fail / Low Battery Report/Warning

The NX-4 can be programmed to report AC failure and/or Low Battery conditions to the central station. It can also be programmed to sound the keypad immediately upon detection of the condition. The AC failure report/warning can be delayed. **(Loc. 37 and 39, page 17 - 18)**

### AC Power / Low Battery Sounder Alert

If enabled, the NX-4 will beep the keypad sounder upon arming or disarming if the AC power is missing or a low battery has been detected. **(Loc. 23, page 16)**

### Arm / Disarm Codes

The NX-4 can have 8 four-digit codes OR 8 six-digit codes to arm/disarm the control. All codes must have the same number of digits. The factory default for User #1 is [**1**]-[**2**]-[**3**]-[**4**] when using a 4-digit code, or [**1**]-[**2**]-[**3**]-[**4**]-[**5**]-[**6**] for a 6-digit code. This code can then be used to enter the new arm/disarm codes. **(Loc. 41, page 19**)

### Automatic Arming

If programmed, the NX-4 will Auto Arm at the time specified in location 53. At that time, the keypad will beep for 50 seconds before the panel arms. The arming process will be stopped if a code is entered on the keypad. The NX-4 will attempt to arm after every 45 minutes of inactivity until the next "opening" time (loc. 52), or until the system is armed. The 45-minute timer will be extended when there is activity in the building causing the "Ready" LED to turn off and on. If closing reports are sent, the user code will be 97. **(Loc. 23, and 52-55, pages 16 and 21. NOTE: For UL installations, this feature shall be disabled.)**

### Automatic Bypass / Instant Arming

When enabled, the control panel can automatically bypass interior follower zones if an exit is not detected during the exit delay time. Entry delay zones can also be made instant. **(Loc. 23, segments 1 & 3, page 16)**

### Auto Cancel / Abort

If enabled, Cancel and/or Abort features will be automatic (means pressing the Cancel button is not required.) The Cancel / Abort features, in Locations 23 and 40 respectively, must be enabled to permit this Auto feature to work. For proper operation of these features, "Dialer Delay" must be enabled in "Characteristic Select" of Locations 110-149 Zone Configuration Groups. **(Loc. 41, page 19)**

### Auto Test

This feature will cause the panel to call the central station to report a communicator test at a specified interval. **(Loc. 37 - Seg. 4, and Loc. 51, pages 17 and 20)**

### Auxiliary Outputs

The NX-4 has two programmable outputs that can be used to activate relays, LED's, etc. **(See the terminal description on page 37 and locations 45-50, pages 19-20)**

### Auxiliary Power Over-current

The NX-4 will illuminate the "Service" LED on the keypad whenever too much current is drawn from any device powered by the system. This condition can be reported to the central station. Power down the system to clear. **(Loc. 37, page 17)**

### Box Tamper

The NX-4 has an input for a normally closed tamper switch (see terminal drawing). The Box Tamper can be programmed to report and/or sound the siren and/or the keypad. These terminals can be enabled or disabled in programming. **(Loc. 37 and 39, page 17)**

## Built In Siren Driver

The NX-4 has a built-in 112db siren driver. When desired, this built-in driver can be easily converted to a 1 amp voltage output through programming. **(Loc. 37, page 17)**

## Bypass Toggle

This feature will enable the end user to toggle (turn on or off) the bypass of an interior zone with the system armed by pressing the [Bypass] key. **(Loc. 23, page 16)**

## Call Back

When enabled, the control will use the call back phone number to call the download computer before beginning a download. **(Loc. 21, page 16)**

## Cancel

If enabled, the NX-4 will send a "Cancel" report if when the system is disarmed and the [Cancel] button is pressed within 5 minutes of an alarm. Once the [Cancel] key is pressed, the "Cancel" LED will illuminate until the central station acknowledges the "Cancel" report. "Dialer Delay" must be enabled in the "Characteristic Select" of Loc. 110-149. **(Loc. 23, page 16)**

## Code Required Options

The NX-4 can be programmed to require a code for bypassing zones and/or initiating a download using the [**✱**]-[**9**]-[**8**] or [**✱**]-[**9**]-[**9**] function. **(Loc. 23 and 41, pages 16 and 19)**

## Communication Formats

The NX-4 can report in multiple formats. It is recommended that you use Contact ID or SIA formats if possible. If you wish to report to a pager or in a 4+2 format to a central station, you must program each code to be reported. **(Loc. 56-83 and 111-149, pages 22-25)**

## Configuration Groups

The NX-4 has 20 programmable configuration groups that determine how each zone will function and report. The default configuration groups (Zone Types) are listed on page 25. **(Loc. 111-149, pages 24-25)**

## Cross Zoning

This feature requires two or more trips on a zone or zones programmed as "cross zones" within a specified time before reporting an alarm. During the time between trips, the NX-4 can be programmed to sound the keypad and/or the siren. The NX-4 can also be programmed to report an alarm after two or more trips on the same zone. **(Loc. 37, 39, 40 and 110-149, pages 17 - 18, 24 - 25)**

## Dual / Split / Multiple Reports

The NX-4 can send communication reports to three different phone numbers for dual, split or multiple reports selectable by event. **(Loc. 4, 10, and 16, pages 13-15)**

## Duress Code

If a duress code is programmed, the NX-4 will send a duress signal whenever the panel is armed or disarmed with this code. If open/close reports are sent, the user code will be 254. **(Loc. 44, page 19)**

## Dynamic Battery Test

The NX-4 can be programmed to perform a Dynamic Battery Test for a selected duration the first time the panel is armed or disarmed every day, as well as by pressing [✳][**4**] Test Function. The NX-4 can also be programmed to perform a missing battery test every 12 seconds. **(Loc. 37 and 40, pages 17 and 18)**

## Entry-Guard

This unique low level arming mode has been developed to reduce the most common source of false alarms. When armed with the *Instant* light on, the opening of any zones designated as "Entry Guard zone" will initiate the keypad sounder and start the entry delay before creating an alarm. All other zones will function as normal. This arming mode will encourage system owners to use their system more frequently when the premise is occupied. **(Loc. 111-149, pages 24-25 NOTE: For UL installations, this feature shall be disabled.)**

## Exit Error

If enabled, the NX-4 will send an "Exit Error Report" if an entry/exit zone is faulted at the instant the exit delay expires. This report will be sent along with the user number that armed the system, if the panel is not disarmed before the entry delay expires. The alarm report will also be sent. Even if this feature is not enabled, the siren will sound if any entry/exit zone is faulted at the instant the exit delay expires. **(Loc. 23, page 16)**

## Expander Trouble

The NX-4 will report expander trouble to the central station if enabled. This condition will illuminate the "Service" LED on the keypad even if not reported. NOTE: The keypads are considered expanders. The number of the expansion devices reported can be found on page 35. **(Loc. 37, page 17)**

## Fail to Communicate

The NX-4 will illuminate the "Service" LED if a report fails to reach the central station. If enabled, when the next report is successfully communicated, a Fail to Communicate code will be reported. **(Loc. 37, page 17)**

## Fire Alarm Verification

When enabled, the NX-4 will verify a Fire alarm by requiring more than one trip on a smoke detector within a specified time before creating an alarm. NOTE: For household systems, the Fire Alarm Verification feature is NOT approved for use in California. This feature shall not be programmed into the control unit. **(Loc. 40, page 18)**

## Force Arming

When enabled, the NX-4 can be Force Armed with zones violated. Under this condition, if a force armable zone is not secure, the "Ready" LED will flash. At the end of the exit delay, these zones will become bypassed. If these zones become secured any time during the arming cycle, they will be unbypassed and active in the system. If "Bypass Report" is enabled, the force arming zones can be programmed to report bypass when they are Force Armed (default), or to not report bypass even if "Bypass Report" is enabled. **(Loc. 37, and 111-149, pages 17 & 24-25 NOTE: For UL installations, this feature shall be disabled.)**

## Group Bypass

A designated group of zones can be programmed to bypass by pressing [**Bypass**]- [**0**]-[**Bypass**]- [**Bypass**] prior to arming. **(Loc. 111-149, pages 24-25 NOTE: For UL installations, this feature shall be disabled.)**

## Immediate Restore By Zone

The NX-4 can be programmed to send alarm and restore reports as soon as they occur, or wait until the siren time has expired. **(Loc. 37, page 17)**

## Internal Event Log

Up to 185 events can be stored in memory along with the date and time of the event. These events can later be viewed through downloading or on the LCD keypad. **All reportable events report to the log.**

## Keypad Activated Panics

The NX-4 has three keypad activated panics that will send reports to the central station: Auxiliary 1 (Fire), Auxiliary 2 (Medical), and Keypad Panic. Auxiliary 1 will activate the steady (Fire) siren, Auxiliary 2 will sound the keypad, and the Keypad Panic can be programmed to be silent or audible (sound siren). **(Loc. 23, page 16)**

## Keypad Sounder Control

The NX-4 can be programmed to sound the keypad sounder for certain events. **(Loc. 39, page 18)**

## Keypad Tamper

If enabled, the NX-4 will disable the keypad for 60 seconds and communicate a tamper signal to the central station if 30 keypresses are entered without producing a valid code. **(Loc. 23, page 16)**

## LED Extinguish

This feature will extinguish all LED's on the keypad, except the "Power" LED, after 60 seconds without a keypress. Pressing any numeric key will illuminate all LED's. **(Loc. 23, page 16)**

## NX-4 Control

### Local Programming Lockout

This feature will disable programming of all locations or specified locations from the keypad. **(Loc. 21, page 16)**

### Log Full Report

A report can be sent to the central station when the event log is full. **(Loc. 37, page 17)**

### Lost Clock Service Light

The NX-4 can be programmed to illuminate the "Service" LED when the internal clock has an invalid time due to power loss. **(Loc. 37, page 17)**

### Manual Test

The NX-4 can be programmed to perform a bell and/or communicator test when [**✱**]-[**4**] is entered while the system is in the disarmed state. **(Loc. 37, page 17)**

### On Board Zone Disable

The four zones on the NX-4 panel can be disabled in order to have a completely wireless alarm system. **(Loc. 37, page 17)**

### Program Code

The factory default for the "Go To Program" code is [**9**]-[**7**]-[**1**]-[**3**] when using a 4-digit code or, if the 6-digit option is used, the default is [**9**]-[**7**]-[**1**]-[**3**]-[**0**]-[**0**]. The program code can also be used as an Arm/Disarm code. If used as an Arm/Disarm code, and open/close reports are sent, the user code will be 255. **(Loc. 43, page 19)**

### Quick Arm Feature

The NX-4 has a one button "Quick Arm" feature which can be used to arm the system by pressing the [**Exit**] key or the [**Stay**] key. If closing reports are sent, the user code will be 98. **(Loc. 23, page 16)**

### Recent Closing

If enabled, the NX-4 will send a "Recent Closing Report" to the central station if an alarm occurs within 2 minutes after the panel is armed. The user number that armed the system will also be sent. **(Loc. 23, page 16)**

### Re-exit

The NX-4 has the ability to restart the exit delay for a quick exit without disarming the system by pressing the [**Exit**] key while the system is armed. **(Loc. 23, page 16)**

### Shutdown

This mode will cause the keypads to turn off all LED's, except the "Power" LED, and not accept keypresses. **(Loc. 21, page 16)**

### Siren Blast For Arming

The NX-4 can be programmed to give a one-second siren blast when the panel is armed, at the end of the exit delay, or when the central station receiver acknowledges the closing report. It can also give one blast for wireless arming and two blasts for wireless disarming. **(Loc. 37, page 17)**

### Siren Supervision

The NX-4 has a "Siren Supervision" circuit that will constantly monitor the siren on the NX-4 and can be programmed to report if the wires are cut. **(Loc. 37, page 17)**

### Silent Exit Option

The exit delay can be silenced by pressing [**✱**]-[**Exit**] before arming the control panel, or when using the re-exit feature.

### Start/End Programming and End Downloading

A report can be sent when local programming is started and ended. A report can also be sent when a download session ends. **(Loc. 37, page 17)**

**Swinger Shutdown**

This feature allows a zone(s) to be automatically bypassed after a specified number of alarms. When a zone is tripped, the alarm 'counter' reflects "1" in memory. If a new (first) alarm is detected in a different zone, the counter remains at "1". If an alarm is detected on a previously tripped zone, the count increments to "2". The 'counter' will increment each time an alarm is detected on a zone with multiple trips. Bypassing will occur on the zone that causes the count to equal the number programmed in location 38; the 'counter' will reset to zero (0); and begin a new trip count where the next alarm will set the 'counter' to 1. If immediate restore is enabled in location 37, the alarms (and restores, if enabled) will be sent as they occur. If immediate restore is not enabled, a second or subsequent alarm will not be sent until the siren times out. **Factory default is 1. (Loc. 37 and 38, page 17)**

**Temporal Siren Disable**

If disabled, the Fire Siren will be steady and Fire Voltage Out will be the same as Burglary (continuous). Otherwise, the Fire Siren will be temporal. **(Loc. 37, page 18 NOTE: For UL installations, do NOT disable.)**

**Two Call Answering Machine Defeat**

If enabled, to defeat an answering machine, two telephone calls must be made to the premises. On the first call, let the phone ring one or two times. The control panel will detect these rings and start a 45-second timer, during which, the control panel will answer the next call on the first ring. **This is not recommended for commercial applications. (Loc. 21, page 16)**

**Walk-Test Mode [✱] [Chime]**

If enabled, entering [✱] [Chime] followed by a user code will allow a walk-through zone test where all zones become silent and local (non-reporting). Each time a zone is faulted, the zone light on the LED keypad will illuminate and the chime will sound. The number of the faulted zone(s) will be displayed on the LCD keypad. It will also be entered into alarm memory and the internal log. To exit at any time during this mode, enter a user code. Otherwise, the "Walk-Test Mode" will automatically exit after 15 minutes. **(Loc. 41, page 19)**

**Wireless Sensor Missing/Low Battery**

The NX-4 will send a report to the central station when a wireless sensor has detected a low battery or has not reported to the receiver. The "Service" LED will illuminate when either condition exists. **(Loc. 37, page 17)**

**Zone Bypassed Sounder Alert**

If this feature is enabled, the NX-4 will beep the keypad sounder upon arming if a zone is bypassed. **(Loc. 23, page 16)**

**Zone Doubling** (Requires additional devices)

Zone doubling can only be enabled when at least one other device is added to the basic system (consisting of the main control panel and one keypad). Additional devices can include wireless receivers, extra keypads, etc. If enabled, this feature allows you to use the four zones on the panel as eight normally closed zones. When this feature is used, European double E.O.L. configuration cannot be used. **THIS FEATURE DOES NOT INCREASE THE TOTAL NUMBER OF AVAILABLE ZONES BEYOND 8.** If one of the eight zones must be a fire zone, it must be one of Zones 1 - 4. The corresponding upper zone will become unavailable. For example, if Zone 4 is a fire zone, then Zone 8 will not be available. **(Loc. 37, page 17)**

## PROGRAMMING THE LED KEYPADS

This section describes how to program the address of each keypad as well as the options that are available. The address of the keypad is important because this is how the panel supervises the keypads. The factory default for the Master code is [**1**]-[**2**]-[**3**]-[**4**] when using a 4-digit code or [**1**]-[**2**]-[**3**]-[**4**]-[**5**]-[**6**] for a 6-digit code. The factory default for the "Go To Program" code is [**9**]-[**7**]-[**1**]-[**3**] for a 4-digit code or [**9**]-[**7**]-[**1**]-[**3**]-[**0**]-[**0**] for a 6-digit code.

**[✱]-[9]-[3] Set keypad options**

1. Enter [**✱**]-[**9**]-[**3**] [**program code**]. The "Service" LED will flash.
2. LEDs 1-8 can now be toggled on/off to enable/disable the following functions:
3. After enabling/disabling the desired functions, press [**✱**]

| LED | KEYPAD FEATURE ENABLED |
|---|---|
| 1 | **RESERVED.** ***DO NOT PROGRAM THIS AT ALL!*** |
| 2 | **Enable Silent Keypad option** - silences the entry/exit sounder & chime only. |
| 3 | **Enable Ding Dong sound for Chime -** If off, chime will be a single tone. (See location 40, page 18) |
| 4 | **Enable Keypress Silence option -** silences the pulsing keypad sounder for 5 seconds when a key is pressed |
| 5 | **Enable Armed Status Suppression -** will not allow the keypad to display faulted or bypassed zones when the system is armed |
| 6 | **Enable Panic, Fire, Medical Beeptone -** will sound a short beep to verify that the keypress was accepted |
| 7 | **Suppresses the "Service" LED** - will not allow the "Service" LED to illuminate for any reason. If there is a system trouble, pressing [**✱**]-[**2**] will still show the service menu. (**NOTE**: For UL installations, the Service LED shall not be suppressed) |
| 8 | **RESERVED. This LED should always be "OFF".** |

**[✱]-[9]-[4] Set keypad number**

1. Enter [**✱**]-[**9**]-[**4**]-[**program code**]. The "Service" LED and the "Instant" LED will flash.
2. Enter the keypad number (1-8).
3. Press [**✱**]. The "Instant" LED will illuminate steady and the"Service" LED will remain flashing.
4. Enter [**1**]. The keypad will automatically exit this mode at this time.

**[✱]-[9]-[5] Set elapsed increments since last autotest**

1. Enter [**✱**]-[**9**]-[**5**]-[**program code**]. The "Service" LED will flash.
2. Enter [100's digit]
3. Enter [10's digit]
4. Enter [1's digit]
5. Press [#] to save and exit.

**[✱]-[9]-[6] Set system date**

1. Enter [**✱**]-[**9**]-[**6**]-[**master code**]. The "Service" LED will flash.
2. Enter [day of week (1=Sun)]
3. Enter [month 10's digit]
4. Enter [month 1's digit]
5. Enter [day 10's digit]
6. Enter [day 1's digit]
7. Enter [year 10's digit]
8. Enter [year 1's digit]

[**✱**]-[**9**]-[**7**] **Set system clock**

1. Enter [**✱**]-[**9**]-[**7**]-[**master code**]. The "Service" LED will flash.
2. Enter [hour 10's digit]
3. Enter [hour 1's digit]
4. Enter [minutes 10's digit]
5. Enter [minutes 1's digit]

**CHANGING USER CODES:**

1. Enter [✱]-[**5**]-[**master code**]. The "Ready" LED will flash.
2. Enter the 2 digit user number (always 2 digits such as "03" for user 3). The "Ready" LED will illuminate steady.
3. Enter the new user code designated for that individual. The "Ready" LED will flash indicating that the code was accepted. If it rejects the code, the sounder will beep 3 times. ***Note for NX1300 Series LED Keypad***: The zone lights will illuminate specifying the first digit of the "user code". (Lights 1-8 on = code is blank; lights 1-8 off = "0"; lights 1 and 8 = "9".) Use the up and down scroll keys to view the next digit or enter a new 4- or 6-digit "user code". While using the scroll keys you can change any digit by entering a new digit. This will advance you to the next digit.
4. If another user code needs to be programmed, return to step 2.
5. Press [**#**] while the "Ready" LED is flashing to exit the User Code Programming Mode.

**ASSIGNING AUTHORITY LEVEL:**

1. Enter [✱]-[**6**]-[**master code**]. The "Ready" LED will flash.
2. Enter [2 digit user number] (always 2 digit such as 03 for user 3). The "Ready" LED will illuminate steady and the "Instant" LED will flash
3. Refer to this chart for the description of each LED. Turn the LED on for the features that you desire**.**

| LED | ATTRIBUTES IF LED 8 IS OFF | LED | ATTRIBUTES IF LED 8 IS ON |
|---|---|---|---|
| **1** | **Reserved** | **1** | Activate output #1 |
| **2** | Arm Only | **2** | Activate output # 2 |
| **3** | Arm Only After Close Window | **3** | Reserved |
| **4** | Master arm/disarm (can program other codes) | **4** | Reserved |
| **5** | Arm/disarm code | **5** | Arm/disarm |
| **6** | Allowed to bypass zones (see location 23) | **6** | Bypass Zones |
| **7** | Code will send open / close reports | **7** | Open / Close Reporting |
| **8** | If this LED is on, LEDs 1-7 will use the chart to the right | **8** | If this LED is off, LEDs 1-7 use the chart to the left |

4. Enter [✱] [✱]. This step returns you back to step 2 above. At this point you may enter another user number to assign attributes for. You may continue this procedure until you have assigned authority levels to all user numbers - or - you may press [**#**] key to exit the Assigning Authority Level Program.

**[✱]-[9]-[8]**

Pressing [✱]-[**9**]-[**8**] while the system is disarmed will cause the control to do a callback for a download. **NOTE: A VALID USER CODE MAY BE REQUIRED AFTER [✱]-[9]-[8] IF ENABLED IN LOCATION 41, PAGE 19.**

**[✱]-[9]-[9]**

Pressing [✱]-[**9**]-[**9**] while the system is disarmed will cause the control panel to seize the phone line for a download. **NOTE: A VALID USER CODE MAY BE REQUIRED AFTER [✱]-[9]-[9] IF ENABLED IN LOCATION 41, PAGE 19.**

## PROGRAMMING THE NX-4 CONTROL

**ENTERING THE PROGRAM MODE:** To enter the Program Mode, press [✱]-[**8**]. At this time, the five function LEDs (Stay, Chime, Exit, Bypass, & Cancel) will begin to flash. Next, enter the "Go To Program Code" (FACTORY DEFAULT IS [**9**]-[**7**]-[**1**]-[**3**]). If the "Go To Program Code" is valid, the "Service" LED will flash and the five function LEDs will illuminate steady. You are now in the Program Mode and ready to select the module to program.

**SELECTING THE MODULE TO PROGRAM:** Since all modules connected to the NX-4 are programmed through the keypad, the module you are programming should be the first entry. To program the NX-4 Control Panel, enter [**0**]-[**#**]. The [**0**] is the module number of the control and the [**#**] is the entry key. Other module entry numbers can be found in their corresponding manuals.

**PROGRAMMING A LOCATION:** Once the number of the module to be programmed has been entered, the "Armed" LED will illuminate, indicating it is waiting for a programming location to be entered. Any location can be accessed by directly entering the desired programming location followed by the pound [**#**] key. If the location entered is a valid location, the "Armed" LED will extinguish, the "Ready" LED will illuminate and the binary data for the first segment of this location will be shown by the zone LED's. While entering new data, the "Ready" LED will begin flashing to indicate a data change in process. The flashing will continue until the new data is stored by pressing the [✱] key. Upon pressing the [✱] key, the keypad will advance to the next segment and display its data. This procedure is repeated until the last segment is reached. Pressing the [**#**] key will exit from this location, and the "Armed" LED will illuminate again waiting for a new programming location to be entered. If the desired location is the next sequential location, press the [POLICE] key. If the previous location is desired press the [FIRE] key. If the same location is desired press the [MEDIC] key. To review the data in a location, repeat the above procedure, pressing the [✱] key without any numeric data entry. Each time the [✱] key is pressed, the programming data of the next segment will be displayed for review.

**EXITING A LOCATION:** After the last segment of a location is programmed, pressing [✱] will save the data, exit that location, turn the "Ready" LED off and the "Armed" LED on. To exit before the last segment, press [**#**]. As before, you are now ready to enter another programming location. If an attempt is made to program an invalid entry for a particular segment, the keypad sounder will emit a triple error beep (beep, beep, beep), and remain in that segment awaiting a valid entry.

**EXITING THE PROGRAM MODE:** When all the desired changes in programming have been made, it is time to exit the program mode. Pressing the [Exit] key will exit this programming level, and go to the "Select a Module. To Program" level. If no additional modules are to be programmed, pressing the [Exit] key again will exit the program mode. If there is a module to be programmed, it may be selected by entering its address followed by the [**#**] key (see "Selecting the Module To Program" above). The procedure for programming these devices is the same as for the control panel, except the locations will be for the module selected.

## PROGRAMMING DATA

Programming data is always one of two types. One type of data is numerical and can take on values from 0 -15 or 0 - 255 depending on the location's segment. The other type of data is a feature selection type. Feature selection data is used to turn features on or off. Use the following procedures when working with these two data types:

**NUMERICAL DATA:** Numerical data is programmed by entering a number from 0-255 on the numeric keys of the system keypad. To view the data in a location, a binary process is used. With this process, the LED's for zones 1 through 8 are utilized, and the numeric equivalents of their illuminated LED's are added together to determine the data in a programming location. The numeric equivalents of these LED's are as follows:

| | | | |
|---|---|---|---|
| Zone 1 LED = **1** | Zone 2 LED = **2** | Zone 3 LED = **4** | Zone 4 LED = **8** |
| Zone 5 LED = **16** | Zone 6 LED = **32** | Zone 7 LED = **64** | Zone 8 LED = **128** |

Example: If the numerical data to be programmed in a location is "66", press [**6**]-[**6**] on the keypad. The LED's for Zone 2 and Zone 7 will become illuminated indicating 66 is in that location (2 + 64 = 66). See this example on page 10. Once the data is programmed, press the [✱] key to enter the data and advance to the next segment of that location. After the last segment of a location is programmed, pressing the [✱] key will exit that location, turn the "Ready" LED off and the "Armed" LED on. As before, you are now ready to enter another programming location. If an attempt is made to program a number too large for a particular segment, the keypad sounder will emit a triple beep, indicating an error, and remain in that segment awaiting a valid entry.

On the LCD keypad, the number in the location will be displayed. For locations with a maximum of 15, the hexidecimal equivalent will be displayed in parenthesis. Example: **11 (B)** or **14 (E)**.

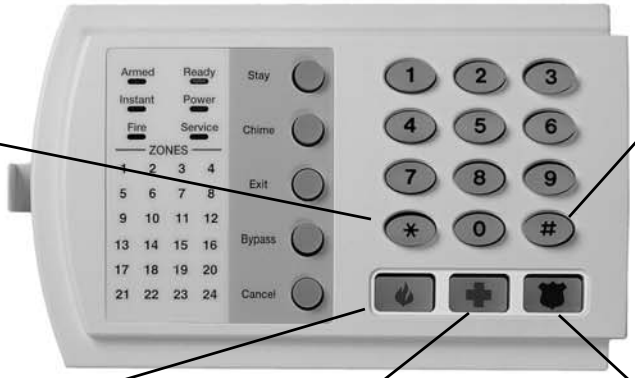
## PROGRAMMING EXAMPLE – FIGURE 1 (Numerical Data)

**Zone 1 LED = 1**
**Zone 4 LED = 8** } **Data = 9**

**Zone 2 LED = 2**
**Zone 7 LED = 64** } **Data = 66**

To change data in a segment, enter the data followed by [✱]

Pressing [#] will exit a location without changing the data in the current segment.




Enters the previous programming "location".

Returns to the "location" just programmed.

Advances to the next programming "location".

---

## PROGRAMMING EXAMPLE – FIGURE 2 (Feature Selection Data)

**Location 23 • Segment 1**

1 = Quick Arm
2 = Re-Exit
3 = Auto Bypass
4 = Silent Keypad Panic
5 = Audible Keypad Panic
6 = Keypad Auxiliary 1
7 = Keypad Auxiliary 2
8 = Multi-Keypad Tamper

Press the key on the numeric keypad that corresponds to the feature you wish to enable/disable. When an LED is "on, a feature is enabled; when "off" the feature is disabled. For example: With the 1, 5, & 7 LEDs "on", Quick Arm, Audible Keypad Panic and Keypad Auxiliary 2 are enabled.

**FEATURE SELECTION DATA:** Feature selection data will display the current condition (on or off) of eight features associated with the programming location and segment selected. Pressing a button on the touchpad (1 thru 8) that corresponds to the "feature number" within a segment will toggle (on/off) that feature. Pressing any numeric key between [**1**] and [**8**] for selection of a feature, will make the corresponding LED illuminate (feature ON). Press the number again, and the LED will extinguish (feature OFF). You will see that numerous features can be selected from within one segment. For instance, if all eight features of a segment are desired, pressing [**1**]-[**2**]-[**3**]-[**4**]-[**5**]-[**6**]-[**7**]-[**8**] will turn on LED's 1 thru 8 as you press the keys, indicating that those features are enabled. **LCD Keypad Users Note: The numbers of the enabled features will be displayed. However, the features not enabled will display a hyphen (-).** After the desired setting of features is selected for this segment, press the [**✱**] key. This will enter the data and automatically advance to the next segment of the location. When you are in the last segment of a location and press the [**✱**] to enter the data, you will exit that location. This will now turn the "Ready" LED off and the "Armed" LED on. As before, you are now ready to enter another programming location.

## LOADING FACTORY DEFAULTS

To load the factory defaults, enter the program mode using the procedure on page 10, then type [**9**]-[**1**]-[**0**]-[**#**]. The keypad will beep 3 times indicating that the loading is in progress. The loading takes about 6 seconds.

## ENROLLING MODULES AND KEYPADS

For supervision purposes, the NX-4 has the ability to automatically find and store in its memory, the presence of all keypads, zone expanders, wireless receivers, and any other module connected to the data terminal. This allows these modules to be supervised by the control panel. To enroll the modules, enter the Program Mode of the NX-4 control panel as described on page 10. When the Program Mode is exited, the NX-4 control will automatically enroll the devices. The enrolling process takes about 12 seconds, during which time the "Service" LED will illuminate. User codes will not be accepted during the enrolling process. Once a module is enrolled, if it is not detected by the control, the "Service" LED will illuminate.

## CONTROL PANEL PROGRAMMING LOCATIONS

***(Note: Various locations have been intentionally omitted. Any attempts to access these locations will be followed by an error "beep".)***

**LOCATION 0 - PHONE NUMBER 1 (20 segments, numerical data)**
The first telephone number is programmed in location 0. A "14" indicates the end of the phone number. Delays of four seconds can be programmed at any point in the phone number by programming a "13" in the appropriate segment. If tone dialing is desired, program a "15" in the segment where tone dialing should begin. If the entire number should be tone dialing, program a "15" in the first segment. Program an "11" for a "✱", and a "12" for a "#". ***Caution***: A call-waiting cancel on a non- call waiting line will prevent successful connection to the central station.

**LOCATION 1 - ACCOUNT CODE FOR THE PHONE #1 (6 segments, numerical data)**
The account code sent when Phone #1 is dialed is programmed in location 1. Program a "10" in the segment immediately after the last digit of the account code. If the account code is 6 digits long, program all 6 segments.

**LOCATION 2 - COMMUNICATOR FORMAT FOR PHONE #1 (1 segment, numerical data)**
Location 2 contains the communicator format used to transmit to the receiver connected to Phone #1. Consult the instructions for your central station receiver to determine which format is compatible. Select a format from the list on the following page. If you require a format other than those listed, review the override options described in location 18, to build the appropriate format. A "15" must be programmed in location 2 in addition to the entries in location 18 in order to create a special format. If this location contains a "0", the built-in communicator will be disabled, and the NX-4 will function as a local only control.

**LOCATION 3 - DIAL ATTEMPTS/BACKUP CONTROL FOR PHONE # 1 (2 segments, numerical data)**
**Segment 1- Dial attempts:** Location 3, Segment 1 is used to enter the number of dial attempts (1 to 15 Attempts) the communicator will make to Phone #1 before ending the notification process. Factory default is "8" and the communicator will make eight (8) attempts to the first number.

**Segment 2- Phone #1 Backup Control:** Programming a "**0**" in Segment 2 of this location will cause the NX-4 to make the designated number of attempts to Phone #2 before setting the "Fail To Communicate" condition and stop reporting. Programming a "**1**" in this segment will cause the NX-4 to stop trying to communicate after the designated number of attempts have been made to Phone #1. If a "**2**" is programmed in this segment, it will cause the NX-4 to make the dial attempts in increments of two. The first two attempts will be made to Phone #1, the next two attempts to Phone #2, then repeating until the total number of attempts designated in Segment 1 is completed.

## FORMAT SELECTIONS

| DATA | FORMAT | DESCRIPTION |
|---|---|---|
| **0** | Local | Communicator is disabled |
| **1** | Universal 4+2 | Two digit event code 1800hz transmit 2300hz handshake double round parity 40pps |
| **2** | 3+1 fast (or 4+1) | One digit event code 1900Hz transmit 1400Hz handshake double round parity 20pps |
| **3** | Reserved | Reserved |
| **4** | Pager | 2 digit event code DTMF transmission |
| **5** | 3/1 or 4/1 slow | 1800hz transmit 2300hz handshake double round parity 20 p.p.s. hex capability |
| **6** | 3/1 or 4/1 slow | 1800hz transmit 1400hz handshake double round parity 20 p.p.s. hex capability |
| **7** | 3/1 or 4/1 fast | 1800hz transmit 2300hz handshake double round parity 40 p.p.s. hex capability |
| **8** | 3/1 or 4/1 fast | 1800hz transmit 1400hz handshake double round parity 40 p.p.s. hex capability |
| **9** | 3/1 or 4/1 fast with parity | 1800hz transmit 2300hz handshake single round w/parity 40 p.p.s. hex capability |
| **10** | 3/1 or 4/1 fast with parity | 1800hz transmit 1400hz handshake single round w/parity 40 p.p.s. hex capability |
| **11** | 4+2 express | 2 digit event code DTMF transmission |
| **12** | 4+2 fast | Two-digit event code 1900hz transmit 1400hz handshake double round parity 20 p.p.s. |
| **13** | Ademco Contact ID | DTMF (see pages 33-34) |
| **14** | SIA | FSK (see pages 33-34) |
| **15** | Custom format | (See location 18, page 16) |

## REPORTING EVENTS TO PHONE NUMBER 1

Location 4 is used to select which events are reported to Phone #1. If dual or split reporting is <u>not</u> desired, location 4 should be used to select <u>all</u> events to Phone #1. If dual or split reporting is desired, location 4 should be used to select only those events that should be reported to Phone #1. If no events should be reported to Phone #1, location 4 should be programmed as "0" (disabled).

**LOCATION 4 - EVENTS REPORTED TO PHONE # 1 (2 segments, feature selection data)**

**Segment 1:**
1 = Alarms and Alarm Restores.
2 = Opening and Closings.
3 = Zone Bypass and Bypass Restores.
4 = Zone Trouble and Trouble Restores.
5 = Power Fail, Low Battery, Power Restore, and Low Battery Restore.
6 = Bell Cut, Bell Cut Restore.
7 = Test Reports.
8 = Start and End programming, Download complete.

**Segment 2:**
1 = Zone and Box Tamper and Tamper Restore.
2 = Auxiliary Power Over-current and Restore.
3 = Wireless Sensor Missing and Restore.
4 = Wireless Sensor Low Battery and Restore.
5 = Expander Trouble and Restore.
6 = Fail To Communicate.
7 = Reserved.
8 = Reserved.

**LOCATION 6** - **PROGRAMMING PHONE #2 (20 segments, numerical data)**
Phone #2 is programmed in location 6. A "14" indicates the end of the phone number. Delays of four seconds can be programmed at any point in the phone number by programming a "13" in the appropriate segment. If tone dialing is desired, program a "15" in the segment where tone dialing should begin. If the entire number should be tone dialing, program a "15" in the first segment. Program an "11" for a "✱", and a "12" for a "#". ***Caution***: A call-waiting cancel on a non- call waiting line will prevent successful connection to the central station.

**LOCATION 7 - ACCOUNT CODE FOR THE PHONE #2 (6 segments of numerical data)**
The account code sent when Phone #2 is dialed is programmed in location 7. Program a "10" in the segment immediately after the last digit of the account code. If the account code is 6 digits long, program all 6 segments. If this location is left unprogrammed, account code 1 will be used when the second phone number is dialed.

**LOCATION 8 - COMMUNICATOR FORMAT FOR PHONE # 2 (1 segment, numerical data)**
Location 8 contains the communicator format used to transmit to the receiver connected to Phone #2. Consult the instruction manual for your central station receiver to determine which format is compatible, and select from the 15 formats listed on page 13. If you require a format other than those listed, review the override options described in Location 18 to build the appropriate format. A "15" must be programmed in location 8 in addition to the entries in location 18 in order to create a special format. If this location contains a "0", format 1 will be used when Phone #2 is dialed.

**LOCATION 9 - DIAL ATTEMPTS/BACKUP CONTROL FOR PHONE #2 (2 segments, numerical data)**

**Segment 1, Dial attempts:** Segment 1 of Location 9 is used to enter the number of dial attempts (1 to 15 attempts) the communicator will make to Phone #2 before ending the notification process. Factory default is "8" and the communicator will make the same number of attempts as those programmed in location 3.

**Segment 2, Phone #2 Backup Control:** Programming a "**0**" in Segment 2 of this location will cause the NX-4 to make the designated number of attempts to Phone #1 before setting the "Fail To Communicate" condition and stop reporting. Programming a "**1**" in this segment will cause the NX-4 to stop trying to communicate after the designated number of attempts have been made to Phone #2. If a "**2**" is programmed in this segment, it will cause the NX-4 to make the dial attempts in increments of two. The first two attempts will be made to Phone #2, the next two attempts to Phone #1, then repeating until the total number of attempts designated in Segment 1 is completed.

## REPORTING EVENTS TO PHONE NUMBER 2

Phone #2 can be used to back up Phone #1 or for a second receiver to multi-report or split report events. Location 10 is used to select which events are reported to Phone #2. <u>If dual or split reporting is not desired, location 10 should be left at the factory default of "0".</u> If multi-reporting or split reporting is desired, location 10 should be used to select only those events that should be reported to Phone #2. If no events should be reported to Phone #2, location 10 should be "0".

**LOCATION 10 - EVENTS REPORTED TO PHONE #2 (2 segments of feature selection data)**

**Segment 1:**
1 = Alarms and Alarm Restores.
2 = Opening and Closings.
3 = Zone Bypass and Bypass Restores.
4 = Zone Trouble and Trouble Restores.
5 = Power Fail, Low Battery, Power Restore, and Low Battery Restore.
6 = Bell Cut, Bell Cut Restore.
7 = Test Reports.
8 = Start and End programming, Download complete.

**Segment 2:**
1 = Zone and Box Tamper and Tamper Restore.
2 = Auxiliary Power Over-current and Restore.
3 = Sensor Missing and Restore.
4 = Sensor Low Battery and Restore.
5 = Expander Trouble and Restore.
6 = Fail To Communicate.
7 = Reserved.
8 = Reserved.

**LOCATION 12** - **PROGRAMMING PHONE #3 (20 segments, numerical data)**
Phone #3 is programmed in location 12. A "14" indicates the end of the phone number. Delays of four seconds can be programmed at any point in the phone number by programming a "13" in the appropriate segment. If tone dialing is desired, program a "15" in the segment where tone dialing should begin. If the entire number should be tone dialing, program a "15" in the first segment. Program an "11" for a "✱", and a "12" for a "#". ***Caution***: A call-waiting cancel on a non- call waiting line will prevent successful connection to the central station.

**LOCATION 13 - ACCOUNT CODE FOR PHONE #3 (6 segments, numerical data)**
The account code sent when Phone #3 is dialed is programmed in location 13. Program a "10" in the segment immediately after the last digit of the account code. If the account code is 6 digits long, program all 6 segments. If location 6 is left unprogrammed, account code 1 will be used when the Phone #3 is dialed.

**LOCATION 14 - COMMUNICATOR FORMAT FOR PHONE #3 (1 segment, numerical data)**
Location 14 contains the communicator format used to transmit to the receiver connected to phone #3. Consult the instruction manual for your central station receiver to determine which format is compatible, and select from the 15 formats listed on page 13. If you require a format other than those listed, review the override options described in Location 18 to build the appropriate format. A "15" must be programmed in location 14 in addition to the entries in location 18 in order to create a special format. If this location contains a "0", format 1 will be used when Phone #3 is dialed.

**LOCATION 15 - DIAL ATTEMPTS/BACKUP CONTROL FOR PHONE #3 (2 segments, numerical data)**

**Segment 1, Dial Attempts:** Segment 1 of Location 15 is used to enter the number of dial attempts (1 to 15 attempts) the communicator will try to Phone #3 before ending the notification process. Factory default is "8" and the communicator will make the same number of attempts as those programmed in location 3.

**Segment 2, Phone # 3 Backup Control:** Programming a "**0**" in Segment 2 of this location will cause the NX-4 to make the designated number of attempts to Phone #2 before setting the "Fail To Communicate" condition and stop reporting. Programming a "**1**" in this segment will cause the NX-4 to stop trying to communicate after the designated number of attempts have been made to Phone #3. If a "**2**" is programmed in this segment, it will cause the NX-4 to make the dial attempts in increments of two. The first two attempts will be made to Phone #3, the next two attempts to Phone #2, then repeating until the total number of attempts designated in Segment 1 is completed.

## REPORTING EVENTS TO PHONE NUMBER 3

Phone #3 can be used for a third receiver to multi-report or split report events. Location 16 is used to select which events are reported to Phone #3. <u>If dual or split reporting is not desired, location 16 should be left at the factory default of "0".</u> If multi-reporting or split reporting is desired, and the split is based on the event type (such as alarm, open/close, etc.), then location 16 should be used to select only those events that should be reported to Phone #3. If no events should be reported to Phone #3, location 16 should be "0".

**LOCATION 16 - EVENTS REPORTED TO PHONE #3 (2 segments, feature selection data)**

**Segment 1:**
1 = Alarms and Alarm Restores.
2 = Opening and Closings.
3 = Zone Bypass and Bypass Restores.
4 = Zone Trouble and Trouble Restores.
5 = Power Fail, Low Battery, Power Restore, and Low Battery Restore.
6 = Bell Cut, Bell Cut Restore.
7 = Test Reports.
8 = Start and End programming, Download complete.

**Segment 2:**
1 = Zone and Box Tamper and Tamper Restore.
2 = Auxiliary Power Over-current and Restore.
3 = Sensor Missing and Restore.
4 = Sensor Low Battery and Restore.
5 = Expander Trouble and Restore.
6 = Fail To Communicate.
7 = Reserved.
8 = Reserved.

**LOCATION 18 - CUSTOM COMMUNICATOR FORMAT (See locations 2, 8, & 14)**

**Segment 1:** 1 = On for 1800hz transmit; Off for 1900hz.
2= On for 2300hz handshake; Off for 1400hz.
3= On for cksum parity; Off for double round parity.
4= On for 2 digit event code; Off for 1 digit event code.
5 & 6= Reserved.
7= On for 20 p.p.s.; Off for 10 or 40 p.p.s.
8= On for 10 p.p.s.; Off for 20 or 40 p.p.s.

**Segment 2 :** 1= On for pager format (no handshake required).
2= On for 1400/2300 handshake.
3 & 4 = Reserved
5= On for Contact ID.
6= On for SIA.
7= On for Contact ID or 4+3.
8= On for DTMF.

**Segment 3 & 4:** Reserved.

**LOCATION 19 - DOWNLOAD ACCESS CODE (8 segments, numerical data)**
Location 19 contains the eight-digit access code the NX-4 must receive from the downloading software before the panel will permit downloading to occur. The factory default code is 84800000.

**LOCATION 20 - NUMBER OF RINGS TO ANSWER (1 segment, numerical data)**
Location 20 contains the number of rings to answer for a download. Enter a number from "0" (disabled) to "15". Factory default is "8" and the NX-4 will answer on 8 rings.

**LOCATION 21 - DOWNLOAD CONTROL (1 segment, feature selection data)**
Location 21 contains the feature selections for the controlling of download sessions. The following features can be enabled or disabled using this location. (See Feature Definitions starting on page 3)
**Segment 1:**

1 - On enables two call answering machine defeat.
2 - Reserved.
3 - On requires call back before download session.
4 - Shutdown.
5 - ➢ On locks all local programming.
6 - ➢ On locks programming of all locations associated with the communicator
7 - ➢ On locks out download section. (If "On", locations 19 - 22 cannot be viewed from the keypad; can only be viewed from the keypad when "Off".)
8 - On enables call back at auto test interval.

➢ **These selections can only be viewed from the keypad and must be changed through downloading.**

**LOCATION 22 - DOWNLOAD CALL BACK NUMBER (20 segments, numerical data)**
If a telephone number is programmed into this location, and "Require Callback" is enabled in location 21, the control panel will hang up for approximately 36 seconds (ensuring that the calling party has disconnected), and then call back. If tone dialing is desired, program an "15" in the segment where tone dialing should begin. If the entire number should be tone dialing, program an A15" in the first segment. Four-second delays can be obtained anywhere in the sequence by programming a "13" in the appropriate delay location. **WARNING: THE CALLBACK PHONE NUMBER SHOULD ALWAYS BE REVIEWED FOR ACCURACY BEFORE DISCONNECTING.**

**LOCATION 23 - FEATURE AND REPORT SELECTIONS (3 segments, feature selection data)**
Location 23 is used to enable certain features that can be accessed or are visible to the user from the keypad of the system. In addition, certain communicator reports are enabled in location 23. This location contains 3 segments of 8 features each. (See Feature Definitions starting on page 3.)

**Segment 1:** 1 - On enables the Quick Arm feature.
2 - On enables the Re-exit feature.
3 - On enables the Automatic Bypass feature. (Default is "on".)
4 - On enables the Silent Keypad Panic feature **(overrides the Audible Panic)**.
5 - On enables the Audible Keypad Panic feature. (Default is "on".)
6 - On enables the Keypad Aux 1 feature (FIRE).
7 - On enables the Keypad Aux 2 feature (MEDICAL).
8 - On enables the Keypad Multiple Code Attempt Tamper feature.

**Segment 2:**
1 - On enables the LED Extinguish feature.
2 - On enables the Require Code for Bypassing feature.
3 - On enables the Zone Bypassed Sounder Alert feature.
4 - On enables the AC Power/Low Battery Sounder Alert feature. (Default is "on".)
5 - On enables Bypass toggle.
6 - On enables Silent Auto Arm.
7 - On enables the Automatic Instant feature.
8 - Reserved.

**Segment 3:**
1 - On enables Opening and Closing reports.
2 - On enables Zone Bypass reporting.
3 - On enables Zone Restore reporting.
4 - On enables Zone Trouble reporting.
5 - On enables Zone Tamper reporting.
6 - On enables the Cancel reporting. (Default is "on".)
7 - On enables the Recent Closing report. (Default is "on".)
8 - On enables the Exit Error report. (Default is "on".)

**LOCATION 24 - ENTRY / EXIT TIMERS (4 segments, numerical data)**
Location 24 is used to program the Entry/Exit times. There are 2 separate Entry/Exit times.

**Segment 1, Entry time 1:** This is the entry time that will be used when a delay 1 zone type initiates an entry delay. Valid entries are 30-255 seconds.
**Segment 2, Exit time 1:** This is the exit time that will be used for all zones designated as delay 1. Valid entries are 45-255 seconds.
**Segment 3, Entry time 2**: This is the entry time that will be used when a delay 2 zone type initiates an entry delay. Valid entries are 30-255 seconds.
**Segment 4, Exit time 2:** This is the exit time that will be used for all zones designated as delay 2. Valid entries are 45-255 seconds.

**LOCATION 25 - ZONES 1-8 ZONE TYPES (8 segments, numerical data)**
Location 25 contains the Zone Type (Configuration Group) for zones 1-8. Segment 1 is for zone 1, and Segment 8 is for zone 8. Default zone types are found in Table 2.1 on page 25. Refer also to the programming worksheets. To customize a Zone Configuration Group, refer to Locations 110 - 149 starting on page 24.

**LOCATION 37 - SIREN AND SYSTEM SUPERVISION (5 segments, feature selection data)**
Location 37 is used to enable various system feature and reporting options. (Refer to the feature definitions.)

**Segment 1:**
1 & 2 - Reserved.
3 - On if siren blast at arming.
4 - On if siren blast at exit expiration.
5 - On if siren blast at closing kissoff.
6 - On if siren sounds during a "Cross Zone" verification time.
7 - On if siren sounds for a Zone or Box Tamper.
8 - On if siren blasts 1 time for wireless arming; 2 times for wireless disarming. (**Note**: Must be disabled for SIA CP-01 installations.)

**Segment 2:**
1 - On if siren driver should be a voltage output. Off if on board siren driver enabled.
2 - On if siren sounds for expander trouble (required for UL installations).
3 - On for zones to immediately restore. Off for zones to restore only when siren is off.
4 - On if Dynamic Battery Test performed at arming. Off if performed at disarming. (See loc. 40)
5 - On if Battery Missing Test is performed every 12 seconds.
6 - On if Manual Bell Test performed during [✱]-[4] test function.
7 - On if Manual Communicator Test performed during [✱]- [4] test function.
8 - On if Box Tamper terminals on the control panel are enabled.

**Segment 3:**
1 - On if Box Tamper report enabled.
2 - On if AC Fail reporting enabled.
3 - On if Low Battery reporting enabled.
4 - On if Aux. Power Over-current report enabled.
5 - On if Siren Supervision report enabled.
6 & 7 - Reserved.
8 - On if Expander Trouble reporting enabled.

**Segment 4:** 1 - On if Fail To Communicate report enabled.
2 - On if Log Full report enabled.
3 - On if Autotest report enabled.
4 - On if Start/End programming report enabled.
5 - On if End Download report enabled.
6 - On if Sensor Low Battery report enabled.
7 - On if Sensor Missing report enabled.
8 - Reserved.

**Segment 5:** 1 = On enable Lost Clock service light.
2 = On enables Zone Doubling (Must have extra devices added to basic system to enable, refer to page 7) (NX-200 Zone Doubling Kit required)
3 = On disables On-Board 4 zones.
4 = On will allow two trips on same cross-zone to activate an alarm.
5 = On will **not** allow zones that are force armed to report bypass.
6 = Reserved.
7 = Use internal crystal for clock.
8 = Disable Temporal Siren on Fire (**NOTE: For UL installations, do NOT disable**.) Refer to the feature definitions beginning on page 3.

**LOCATION 38 - SWINGER SHUTDOWN COUNT**
Location 38 contains the number of trips on a zone before that zone is bypassed automatically. Refer to the feature definitions beginning on page 3. **Factory default is 1.**

**LOCATION 39 - KEYPAD SOUNDER CONTROL (1 segment, feature selection data)**

**Segment 1:** 1 & 2 - Reserved.
3 - On if keypad sounds upon AC Power Failure.
4 - On if keypad sounds when a Low Battery is detected.
5 - On if keypad sounds during Cross Zone trip time.
6 - On if keypad sounds for zone and box tampers.
7 - Reserved.
8 - On if keypad sounds for expander trouble (required for UL installations).

**LOCATION 40 - SYSTEM TIMERS (10 segments, numerical data**)
Location 40 contains the duration of various system timing functions. Example: If you desire the duration of the Dynamic Battery Test to be 30 minutes, you should program [**3**]-[**0**]-[**✱**] in segment 1 of this location. The [3]-[0] is the number of minutes, and the [**✱**] stores the data and moves to the next segment of this location.

**Segment 1** Dynamic Battery Test duration in minutes 0-255 minutes. (Default is 0 = no test)
**Segment 2** AC Fail report delay in minutes 0-255 minutes. (Default is 5 minutes)
**Segment 3** Power Up Delay in seconds 0-60 seconds (0 = no power up delay). (Default is 60 seconds)
**Segment 4** Siren Time in minutes 1-255 minutes. (Default is 8 minutes)
**Segment 5** Reserved.
**Segment 6** Cross Zone time in minutes 0-255. (0 = no cross zoning) (Default is 5 minutes)
**Segment 7** Chime time in 50mS (1/20th second) increments from 0-12 seconds. (0 = follows zone 255 latched).
**Segment 8** Dial delay in seconds 15-255 seconds. (Default is 30 seconds)
**Segment 9** Fire Alarm Verification time in seconds 120-255 seconds. (Default is 0 = no verification)
**Segment 10** Listen-In time in seconds 0-255. (Default is 0 = no Listen-In time)

**IMPORTANT NOTES**

1. The "Listen-In" feature cannot be enabled for UL Listed systems. The "Dynamic Battery Test" feature cannot exceed four (4) hours. The dial delay shall be set to "0".
2. For household systems, the Fire Alarm Verification feature is NOT approved for use in California. This feature shall not be programmed into the control unit.

**LOCATION 41 - CODE REQUIREMENTS (1 segment, feature data)**

**Segment 1:**

1 = On enables the 6-digit code option. *If 6-digit option is enabled, all arm/disarm codes and the "Go To Program Code" must be 6 digits.* If this option is enabled, the default user 1 code is [**1**]-[**2**]-[**3**]-[**4**]-[**5**]-[**6**]. **NOTE: IF YOU ENABLE THIS OPTION, VERIFY THAT THE "GO TO PROGRAM CODE" IS A SIX-DIGIT CODE BEFORE EXITING PROGRAMMING.**

2 = On requires code entry for [**✱**]-[**9**]-[**8**] (perform call back download) and [**✱**]-[**9**]-[**9**] (answer incoming call for download) functions.

3 = Enable Auto Cancel/Abort. (Refer to definitions beginning on page 3.)

4 = Enable Walk-Test Mode. (Refer to definitions beginning on page 3.)

5-8 = Reserved.

**LOCATION 42 - GO TO PROGRAM CODE (6 segments, numerical data)**

Location 42 contains the "Go To Program Code". This location contains either a 4 or 6-digit code. *If the 6-digit code option is enabled in Location 41, this code must contain six (6) digits.* If this option is not enabled in location 41, the last 2 segments (digits) will be ignored. With the NX-4 disarmed, the "Go To Program Code" can be used to enter the Program Mode.

**LOCATION 43 - GO TO PROGRAM CODE AND AUTHORIZATION (1 segment, feature selection data)**

The "Go To Program Code" can be used as a standard arm/disarm code. When using the code to arm or disarm, the user ID is 255. (This code may not be changed in the Run Mode.)

**Segment 1:**

1 - Reserved.
2 - On enables "Go To Program Code" as an arm only code.
3 - On enables "Go To Program Code" as an arm only after closing.
4 - On enables "Go To Program Code" as a master arm/disarm code (can change user codes).
5 - On enables "Go To Program Code" as an arm/disarm code.
6 - On enables "Go To Program Code" to bypass zones.
7 - On enables "Go To Program Code" opening and closing reports.
8 - Reserved.

**LOCATION 44 - DURESS CODE (6 segments, numerical data)**

Location 44 contains the "Duress" code. This location contains either 4 or 6 digits. *If the 6-digit code option is enabled in Location 41, this code must contain six (6) digits.* If the 6-digit option is not enabled in location 41, the last 2 digits will be ignored.

**LOCATION 46 - AUXILIARY OUTPUT SPECIAL TIMING (2 segments, feature selection data)**

Location 46 contains special timing feature activation for the two auxiliary outputs. Segment 1 corresponds to output 1, Segment 2 corresponds to output 2.

**Segments 1-2:**

1 = On if output should be timed in minutes; Off if timed in seconds.
2 = On if output should latch; Off if output should be timed.
3 = On if output should stop timing upon code entry; Off if the output should continue to time upon code entry.
4 = On if output should only activate between the closing and opening time in loc. 52 and 53.
5 = On if output should only activate between the opening and closing time in loc. 52 and 53.
6 = On if output should be inverted (0 volts going to 12 volts when activated).
7 = Reserved.
8 = Reserved.

**LOCATION 47 - AUXILIARY OUTPUT #1, EVENT AND TIME (2 segments, numerical data)**

**Segment 1:** Use the chart on page 20 to select the event that will activate Auxiliary Output 1.
**Segment 2:** Program the timing from 0-255 (minutes or seconds, depending on data programmed in Segment 1, Location 46). Programming a "0" makes the output follow the event.

**LOCATION 48 - AUXILIARY OUTPUT #2, EVENT AND TIME (2 segments, numerical data)**

**Segment 1:** Use the chart on page 20 to select the event that will activate Auxiliary Output 2.
**Segment 2:** Program the timing from 0-255 (minutes or seconds, depending on data programmed in Segment 2, Location 46). Programming a "0" makes the output follow the event.

## AUXILIARY OUTPUT EVENT SELECTION

| DATA | | EVENT | DATA | | EVENT |
|---|---|---|---|---|---|
| **0** | √ | Burglary Alarm | **26** | | Fire Trouble |
| **1** | √ | Fire Alarm | **27** | | Chime |
| **2** | √ | 24 Hour Alarm | **28** | √ | Expander Trouble |
| **3** | √ | Trouble Alarm | **29** | | Dynamic Battery Test Time |
| **4** | √ | Tamper Alarm | **30** | | Open Period |
| **5** | | Yelping Siren (Burglary) | **31** | | Closed Period |
| **6** | | Temporal Siren (Fire) | **32** | | Listen-In |
| **7** | | Any Siren | **33** | | Line Seizure |
| **8** | | Any Bypass | **34** | | Ground Start |
| **9** | | AC Fail | **35** | | Fail To Communicate |
| **10** | | Low Battery | **36** | | Reserved |
| **11** | √ | Duress | **37** | | Program Mode |
| **12** | √ | Aux 1 Keypad Zone | **38** | | Download In Process |
| **13** | √ | Aux 2 Keypad Zone | **39** | | Reserved |
| **14** | √ | Panic Keypad Zone | **40** | | Short Circuit (Over-current) |
| **15** | | Keypad Tamper | **41** | | Box Tamper |
| **16** | √ | Autotest | **42** | | Siren Tamper |
| **17** | | Alarm Memory | **43** | | Any Open |
| **18** | | Entry | **44** | | Any Short |
| **19** | | Exit | **45** | | Any Fault (Open/ Short on Non-Fire Zone) |
| **20** | | Entry or Exit | **46** | √ | Any Alarm |
| **21** | | Armed State | **47** | | Beeping Keypad |
| **22** | | Disarmed State | **48** | √ | Code Entry (See note below) |
| **23** | | Ready | **49** | ❖ √ | Key FOB Function 1 |
| **24** | | Not Ready | **50** | ❖ √ | Key FOB Function 2 |
| **25** | | Fire | | | |

**Notes:** When Event 48 is programmed, it is possible to program a user code's authorization to select which output(s) a particular code will activate. When LED 8 is on for an authorization, then LEDs 1- 2 correspond to that code activating outputs 1 & 2 respectively. **(See programming the LED keypads on page 8.)**

❖ **Events 49 & 50 require NX-408E, NX-416E or NX-448E wireless receivers to operate.**
√ **If set to follow condition, these events will be 1 second.**

### LOCATION 51 - AUTOTEST CONTROL (4 segments, numerical data)

**Segment 1:** Program a "1" if the interval is to be in hours; Program a "0" if in days. Add a "2" to suppress the daily test or a "3" to suppress the hourly test if any report has been sent.

**Segment 2:** Program the Autotest interval from 1-255 hours/days.

**Segment 3:** Program the Autotest report hour in 24-hour format (if the interval is in hours, this segment is ignored).

**Segment 4:** Program the Autotest report time, number of minutes after the hour.

**LOCATION 52 - OPENING TIME (2 segments, numerical data)**
Location 52 contains the time in 24 hour format the NX-4 enables codes designated as arm only after closing. This time is only valid on those days programmed in location 54. **NOTE:** Opening time must be earlier than closing time for Auto Arm, Aux. Outputs, or Code Authorization to function properly.

**Segment 1:** Program the hour of the opening time**.**

**Segment 2:** Program the minutes after the hour of the opening time.

**LOCATION 53 - CLOSING TIME/AUTOMATIC ARMING TIME (2 segments, numerical data**)
Location 53 contains the time in 24 hour format the NX-4 disables the disarm capability for codes designated as arm only after closing. This is also the time the Automatic Arming sequence will begin (if enabled in location 55). **NOTE:** Opening time must be earlier than closing time for Auto Arm, Auxiliary Outputs, or Code Authorization to function properly.

**Segment 1:** Program the hour of the closing / auto arm time**.**

**Segment 2:** Program the minutes after the hour of the closing / auto arm time.

**LOCATION 54 - DAYS OF THE WEEK SYSTEM IS OPEN (1 segment, feature selection data)**
Location 54 selects which days of the week system is open. On these days, "arm only after close window" codes will be able to arm and disarm during open window. **NOTE: If system is not programmed to be opened and is programmed to Auto-Arm (Location 55), the NX-4 will try to arm every 45 minutes for the duration of the closed period.** On days not selected here, "arm only after close window" codes will not disarm. **(See locations 52 and 53 for the opening and closing times for the open days.)**

**Segment 1:**
1 -Open on Sunday.
2 -Open on Monday.
3 -Open on Tuesday.
4 -Open on Wednesday.
5 -Open on Thursday.
6 -Open on Friday.
7 -Open on Saturday.
8 -Reserved.

**LOCATION 55 - DAYS OF THE WEEK FOR AUTO ARMING (1 segment, feature selection data)**
Location 55 selects which days the system will auto arm. If a zone is faulted when the panel tries to auto arm, the zone will be bypassed.

**Segment 1:**
1 - Auto Arming on Sunday.
2 - Auto Arming on Monday.
3 - Auto Arming on Tuesday.
4 - Auto Arming on Wednesday.
5 - Auto Arming on Thursday.
6 - Auto Arming on Friday.
7 - Auto Arming on Saturday.
8 - Reserved.

## COMMUNICATOR CODES FOR SLOW FORMATS ONLY

***LOCATIONS 56- 83 ARE ONLY USED WHEN REPORTING EVENTS TO A PAGER OR USING A SLOW FORMAT SUCH AS 4+2. WHEN USING CONTACT ID OR SIA, THERE IS NO NEED TO PROGRAM THESE LOCATIONS.***

**LOCATION 56 - "RESTORE" CODE (1 segment, numerical data)**
Location 56 contains the event code for any zone "Restore" for a 4+2 format. The digit programmed in this location will be sent as the tens digit in place of the alarm event code. **The zone ID will always be reported as the ones digit of the zone number (i.e. 3 for zone 3).**

**LOCATION 57 - "BYPASS" CODE (1 segment, numerical data)**
Location 57 contains the event code for a zone "Bypass" for a 4+2 format. The digit programmed in this location will be sent as the tens digit. **The zone ID will always be reported as the ones digit of the zone number (i.e. 3 for zone 3).**

**LOCATION 58 - "TAMPER" CODE (1 segment, numerical data)**
Location 58 contains the event code for a zone "Tamper" for a 4+2 format. The digit programmed in this location will be sent as the tens digit. **The zone ID will always be reported as the zone number (i.e. 3 for zone 3).**

**LOCATION 59 - "TROUBLE" CODE (1 segment, numerical data)**
Location 59 contains the event code for a zone "Trouble" for a 4+2 format. The digit programmed in this location will be sent as the tens digit. **The zone ID will always be reported as the zone number (i.e. 3 for zone 3).**

**LOCATION 60 - "SENSOR LOW BATTERY" CODE (1 segment, numerical data)**
Location 60 contains the event code for a zone "Sensor Low Battery" for a 4+2 format. The digit programmed in this location will be sent as the tens digit. **The zone ID will always be reported as the zone number (i.e. 3 for zone 3).**

**LOCATION 61 - "SENSOR MISSING" CODE (1 segment, numerical data**)
Location 61 contains the event code for a zone "Sensor Missing" for a 4+2 format. The digit programmed in this location will be sent as the tens digit. **The zone ID will always be reported as the zone number (i.e. 3 for zone 3).**

**LOCATION 62 - "DURESS" CODE (2 segments, numerical data)**
Location 62 contains the tens and ones digits that will be sent for a 4+2 format if the Duress code is enabled in location 44. Segment 1 contains the tens digit, segment 2 contains the ones digit.

**LOCATION 63 - "KEYPAD AUXILIARY 1" CODE (2 segments, numerical data)**
Location 63 contains the tens and ones digits that will be sent for a 4+2 format if the keypad "Auxiliary 1" (FIRE) is enabled in location 23. Segment 1 contains the tens digit, segment 2 contains the ones digit.

**LOCATION 64 - "KEYPAD AUXILIARY 2" CODE (2 segments, numerical data)**
Location 64 contains the tens and ones digits that will be sent for a 4+2 format if the keypad "Auxiliary 2" (MEDICAL) is enabled in location 23. Segment 1 contains the tens digit, segment 2 contains the ones digit.

**LOCATION 65 - "KEYPAD PANIC" CODE (2 segments, numerical data)**
Location 65 contains the tens and ones digits that will be sent for a 4+2 format if the keypad "Panic" is enabled in location 23. Segment 1 contains the tens digit segment 2 contains the ones digit.

**LOCATION 66 - "KEYPAD MULTIPLE CODE ENTRY TAMPER" CODE (2 segments, numerical data)**
Location 66 contains the tens and ones digits that will be sent for a 4+2 format if the keypad "Multiple Code Entry" (Tamper) is enabled in location 23. Segment 1 contains the tens digit, segment 2 contains the ones digit.

**LOCATION 67 - "BOX TAMPER / BOX TAMPER RESTORE" CODES (4 segments, numerical data)**
Location 67 contains the tens and ones digits that will be sent for a 4+2 format if the "Box Tamper" feature is enabled in location 37. Segment 1 contains the tens digit of the "Box Tamper". Segment 2 contains the ones digit of the "Box Tamper". Segment 3 contains the tens digit of the "Box Tamper Restore". Segment 4 contains the ones digit of the "Box Tamper Restore".

**LOCATION 68 - "AC FAIL / AC FAIL RESTORE" CODES (4 segments, numerical data)**
Location 68 contains the tens and ones digits for a 4+2 format that will be sent if "AC Fail Reporting" is enabled. Segment 1 contains the tens digit of the "AC Fail Reporting". Segment 2 contains the ones digit of the "AC Fail Reporting". Segment 3 contains the tens digit of the "AC Fail Restore". Segment 4 contains the ones digit of the "AC Fail Restore".

**LOCATION 69 - "LOW BATTERY / LOW BATTERY RESTORE" CODES (4 segments, numerical data)**
Location 69 contains the tens and ones digits for a 4+2 format that will be sent if "Low Battery Reporting" is enabled. Segment 1 contains the tens digit of the "Low Battery Reporting". Segment 2 contains the ones digit of the "Low Battery Reporting". Segment 3 contains the tens digit of the "Low Battery Restore". Segment 4 contains the ones digit of the "Low Battery Restore".

**LOCATION 70 - "AUX POWER OVER-CURRENT / AUX POWER OVER-CURRENT RESTORE" CODES (4 segments, numerical data)**
Location 70 contains the tens and ones digits for a 4+2 format that will be sent if "Aux Power Over-current Reporting" is enabled. Segment 1 contains the tens digit of the "Aux Power Over-current Reporting". Segment 2 contains the ones digit of the "Aux Power Over-current Reporting". Segment 3 contains the tens digit of the "Aux Power Over-current Restore". Segment 4 contains the ones digit of the "Aux Power Over-current Restore".

**LOCATION 71 - "BELL TAMPER / BELL TAMPER RESTORE" CODE (4 segments, numerical data)**
Location 71 contains the tens and ones digits for a 4+2 format that will be sent if siren supervision reporting is enabled. Segment 1 contains the tens digit of the "Bell Tamper Reporting". Segment 2 contains the ones digit of the "Bell Tamper Reporting". Segment 3 contains the tens digit of the "Bell Tamper Restore". Segment 4 contains the ones digit of the "Bell Tamper Restore".

**LOCATION 74 - "EXPANDER TROUBLE / EXPANDER TROUBLE RESTORE" CODE (4 segments, numerical data)**
Location 74 contains the tens and ones digits for a 4+2 format that will be sent if "Expander Trouble Reporting" is enabled. Segment 1 contains the tens digit of the "Expander Trouble Reporting". Segment 2 contains the ones digit of the "Expander Trouble Reporting". Segment 3 contains the tens digit of the "Expander Trouble Restore". Segment 4 contains the ones digit of the "Expander Trouble Restore".

**LOCATION 75 - "FAIL TO COMMUNICATE" CODE (2 segments, numerical data)**
Location 75 contains the tens and ones digits for a 4+2 format that will be sent if the "Fail To Communicate Reporting" is enabled. Segment 1 contains the tens digit, segment 2 contains the ones digit.

**LOCATION 76 - "LOG FULL" CODE (2 segments, numerical data)**
Location 76 contains the tens and ones digits for a 4+2 format if the "Log Full Reporting" is enabled. Segment 1 contains the tens digit, segment 2 contains the ones digit.

**LOCATION 77 - "OPENING" CODE (1 segment, numerical data)**
Location 77 contains the tens digit of a 4+2 format if the "Opening Reporting" is enabled. **The ones digit is the ones digit of the user number that did the opening. If the user is greater than 9, the numbers will begin repeating**.

**LOCATION 78 - "CLOSING" CODE (1 segment, numerical data)**
Location 78 contains the tens digit of a 4+2 format if the "Closing Reporting" is enabled. **The ones digit is the ones digit of the user number that did the closing. If the user is greater than 9, the numbers will begin repeating**.

**LOCATION 79 - "AUTOTEST" CODE (2 segments, numerical data)**
Location 79 contains the tens and ones digits for a 4+2 format that will be sent if the "Autotest" or "Manual Test" is enabled. Segment 1 contains the tens digit segment 2 contains the ones digit.

**LOCATION 80 - "RECENT CLOSING AND EXIT ERROR" CODE (2 segments, numerical data)**
Location 80 contains the tens digit for a 4+2 format that will be sent if "Recent Closing" and/or "Exit Error Reporting" is enabled. Segment 1 contains the tens digit for the "Recent Closing Reporting". Segment 2 contains the digit for the "Exit Error Reporting". **The ones digit is the ones digit of the user who closed.** If it is required to report Recent Closings and Exit Errors for more than 9 users, Contact ID or SIA format must be used.

**LOCATION 81 - "START PROGRAM AND END PROGRAM" CODES (4 segments, numerical data)**
Location 81 contains the tens and ones digits for a 4+2 format that will be sent if "Start / End Programming Reporting" is enabled. Segment 1 contains the tens digit of the "Start Program Reporting". Segment 2 contains the ones digit of the "Start Program Reporting". Segment 3 contains the tens digit of the "End Program Reporting". Segment 4 contains the ones digit of the "End Program Reporting".

**LOCATION 82 - "END DOWNLOAD" CODE (4 segments, numerical data)**
Location 82 contains the tens and ones digits for a 4+2 format that will be sent if "End Downloading Reporting" is enabled. Segment 1 and 2 are reserved. Segment 3 contains the tens digit of the "End Download Reporting". Segment 4 contains the ones digit of the "End Download Reporting". **Note**: A start download report will be sent to the internal event log.

**LOCATION 83 - "CANCEL" CODE (1 segment, numerical data)**
Location 83 contains the tens digit for a 4+2 format that will be sent if "Cancel Reporting" is enabled. Segment 1 contains the tens digit for the "Cancel Communicator Reporting". **The ones digit is the ones digit of the user who canceled.** If it is required to report Cancels for more than 9 users, Contact ID or SIA format must be used.

## CUSTOMIZING ZONE TYPES (Configuration Groups)

**NOTE: Locations 110-149 are used to change the zone types (configurations) as listed in the table on page 25. These locations are considered advanced programming and should only be changed with a thorough understanding of the operation of each bit.**

| Table 1.1 | GROUP CHARACTERISTIC SELECTIONS |
|---|---|
| **Segment 1** | 1 = Fire (turn on if this is a fire zone).<br>2 = 24 hour (turn on for non-fire 24 hour zones).<br>3 = Reserved<br>4 = Follower (turn on for burglary zones that are Instant during non-entry times).<br>5 = Delay 1 zone (follows timer 1 entry and exit times).<br>6 = Delay 2 zone (follows timer 2 entry and exit times).<br>7 = Interior (turn on if zone should Automatically Bypass or Bypass for Stay Arming).<br>8 = Local only (turn on if this zone should not be reported). |
| **Segment 2** | 1 = On will beep the keypad for alarm.<br>2 = On will sound the yelping siren for alarm.<br>3 = On will sound the temporal siren for alarm.<br>4 = On will chime.<br>5 = On will bypass.<br>6 = On will include in the group shunt.<br>7 = On is force armable.<br>8 = On is entry guard. |
| **Segment 3** | 1 = RESERVED<br>2 = On enables Double End Of Line Tamper zone. (Mainly used for tamper on wireless zones)<br>3 = On enables Trouble Reporting zone. (Day zone and Fire zones)<br>4 = On enables Cross Zoning.<br>5 = On enables Dialer Delay zone. (See location 40, page 18)<br>6 = On enables swinger shutdown. (See location 38, page 18)<br>7 = On enables Restore reporting.<br>8 = On enables Listen-In. (See location 40, page 18) |

**LOCATION 110 - GROUP 1 ALARM EVENT CODE (1 segment, numerical data)**
Location 110 contains the event code sent for a Contact ID or SIA report. The desired event code should be chosen from the list on page 34. The zone ID will be that zone that is in alarm. If 4+2 format is being used, the number programmed in this location will be sent as the tens digit. When using 4+2 the digit in location 110 should be from 1-15. The zone ID for 4+2 formats will be the ones digit of the zone that is in alarm.

**LOCATION 111 - GROUP 1 CHARACTERISTIC SELECT (3 segments, feature selection data)**
Use Table 1.1 "Group Characteristic Selection" above to program this location.

**LOCATIONS 112 THRU 149** contain the remaining 19 Customized Zone Group information. The **even** numbered locations reflect the "Group Alarm Event Code" and the **odd** numbered locations designate the Group Characteristics. Locations 112 and 113 correspond to Group 2; Locations 148 and 149 correspond to Group 20. Use the description found in Location 110 for programming the Alarm Event Codes, and use Table 1.1 shown on page 24 to select the Group Characteristics. Refer also to the Programming Worksheets.

## Table 2.1 STANDARD ZONE TYPES (Default Configurations)

Zones can be programmed to be one of twenty different zone types (configurations). Zone types # 17 - 20 can be used for wireless or hardwired zones using European double EOL configuration. The default zone types are listed below. If none of the following zone types meet your needs, these configurations can be customized by programming locations 110-149.

| DATA | DESCRIPTION OF STANDARD ZONE TYPES |
|---|---|
| "1" | **DAY ZONE** - Instant when system is armed trouble zone when system is disarmed. |
| "2" | **24-HOUR AUDIBLE** - Creates an instant yelping siren alarm regardless of the armed state of the panel. |
| "3" | **ENTRY/EXIT DELAY 1-** A trip will start entry delay 1. The lack of a trip during exit delay will enable the Automatic Bypass or Instant mode if so programmed. |
| "4" | **FOLLOWER WITH AUTO- BYPASS DISABLED -** This zone will be instant when the system is armed and no entry or exit delays are being timed. It is delayed during entry and exit delay times. This zone will not automatically bypass even if enabled in Segment 1 of Location 23. |
| "5" | **INTERIOR FOLLOWER WITH AUTO- BYPASS ENABLED -** This zone will be instant when the system is armed and no entry or exit delay is being timed. It is delayed during entry and exit delay times. This zone will automatically bypass if enabled in Segment 1 of Location 23. |
| "6" | **INSTANT -** This zone creates an instant alarm whenever it is tripped and the Armed LED is on. |
| "7" | **24-HOUR SILENT -** Creates an instant silent alarm regardless of the armed state of the control panel. It will not display on the keypad. |
| "8" | **FIRE -** This zone will light the Fire LED and sound the temporal siren each time the zone is shorted. It will also rapidly flash the Fire LED indicating a trouble if the zone is open. |
| "9" | **ENTRY/EXIT DELAY 2-** A trip will start entry delay 2. The lack of a trip during exit delay will enable the Automatic Bypass or Instant mode if so programmed. |
| "10" | **24-HOUR SILENT SUPERVISED-** Creates an instant silent alarm regardless of the armed state of the control panel. It will display on the keypad. |
| "11" | **RESERVED** |
| "12" | **INTERIOR FOLLOWER WITH "CROSS ZONE" ENABLED** - This zone will be instant when the system is armed and no entry or exit delay is being timed. It is delayed during entry and exit delay times. If a "Cross Zone" is not being timed it will start a "Cross Zone" timer. If a "Cross Zone" is being timed it will create an instant alarm. This zone will automatically bypass when enabled in Segment 1 of Location 23. |
| "13" | **INSTANT ENTRY GUARD -** This zone creates an instant alarm whenever it is tripped and the Stay LED is off. It will start an entry delay time 2 if it is tripped and the system is armed and the Stay LED is on. |
| "14" | **ENTRY/EXIT DELAY 1 WITH GROUP BYPASS ENABLED -** A trip will start entry delay 1. This zone will bypass when the "Group Bypass" command is entered at the keypad. The lack of a trip during exit delay will enable the Automatic Bypass or Instant mode if so programmed. |
| "15" | **INTERIOR FOLLOWER WITH GROUP BYPASS ENABLED -** This zone will be instant when the system is armed and no entry or exit delays are being timed. It is delayed during entry/exit delay times. This zone will bypass when the "Group Bypass" command is entered at the keypad. This zone will automatically bypass if enabled in Segment 1 of Location 23. |
| "16" | **INSTANT WITH GROUP BYPASS ENABLED -** This zone creates an instant alarm whenever it is tripped and the Armed LED is on. This zone will bypass when the "Group Bypass" command is entered at the keypad. |
| "17" | **ENTRY/EXIT DELAY 1 WITH TAMPER ENABLED-** A trip will start entry delay 1. The lack of a trip during exit delay will enable the Automatic Bypass or Instant mode if so programmed. **This configuration group can be used to enable tamper on a wireless transmitter.** |
| "18" | **INTERIOR FOLLOWER WITH TAMPER AND AUTO-BYPASS ENABLED -** This zone will be instant when the system is armed and no entry or exit delay is being timed. It is delayed during entry and exit delay times. This zone will automatically bypass if enabled in Segment 1 of Location 23. **This configuration group can be used to enable tamper on a wireless transmitter.** |
| "19" | **INSTANT WITH TAMPER ENABLED -** This zone creates an instant alarm whenever it is tripped and the Armed LED is on. **This configuration group can be used to enable tamper on a wireless transmitter**. |
| "20" | **ENTRY/EXIT DELAY 2 WITH TAMPER ENABLED-**A trip will start entry delay 2. The lack of a trip during exit delay will enable the Automatic Bypass or Instant mode if so programmed. **This configuration group can be used to enable tamper on a wireless transmitter.** |

## PROGRAMMING WORKSHEETS

➳ Factory defaults for segments are in ***bold italics*** text. Some locations are reserved and have been intentionally omitted.

| LOC | PG | DESCRIPTION | DEFAULT | PROGRAMMING DATA |
|---|---|---|---|---|
| 0 | 12 | PHONE #1 | ***14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14*** | __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ |
| 1 | 12 | PHONE #1, ACCOUNT CODE | ***10 - 10 - 10 - 10 - 10 - 10*** | _ _ _ _ _ _ |
| 2 | 12 | PHONE #1, REPORTING FORMAT | ***0*** | _ |
| 3 | 12 | PHONE #1, DIAL ATTEMPTS<br>BACKUP CONTROL | ***8***<br>***0*** | _<br>_ |
| 4 | 13 | PHONE #1, SELECTING EVENTS TO REPORT TO PHONE #1 | | |

Segment #1 (Circle Numbers To Program)

| | |
|---|---|
| ***1*** | ***Alarms and Restores*** |
| ***2*** | ***Open/Close*** |
| ***3*** | ***Bypass*** |
| ***4*** | ***Zone Trouble*** |
| ***5*** | ***Power Trouble (AC Failure or Low Battery)*** |
| ***6*** | ***Siren*** |
| ***7*** | ***Test Reports*** |
| ***8*** | ***Program, Download, & Log Full*** |

Segment #2 (Circle Numbers To Program)

| | |
|---|---|
| ***1*** | ***Tampers*** |
| ***2*** | ***Short Circuit*** |
| ***3*** | ***Sensor Lost*** |
| ***4*** | ***Sensor Low Battery*** |
| ***5*** | ***Expander Trouble*** |
| ***6*** | ***Failure To Communicate*** |
| ***7*** | ***Reserved*** |
| ***8*** | ***Reserved*** |

| | | | | |
|---|---|---|---|---|
| 6 | 14 | PHONE #2 | ***14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14*** | __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ |
| 7 | 14 | PHONE #2, ACCOUNT CODE | ***10 - 10 - 10 - 10 - 10 - 10*** | _ _ _ _ _ _ |
| 8 | 14 | PHONE #2, REPORTING FORMAT | ***0*** | _ |
| 9 | 14 | PHONE #2, DIAL ATTEMPTS<br>BACKUP CONTROL | ***8***<br>***0*** | _<br>_ |
| 10 | 14 | PHONE #2, SELECTING EVENTS TO REPORT TO PHONE #2 | | |

**Segment #1** (Circle Numbers To Program)

| | |
|---|---|
| 1 | Alarms and Restores |
| 2 | Open/Close |
| 3 | Bypass |
| 4 | Zone Trouble |
| 5 | Power Trouble (AC Failure or Low Battery) |
| 6 | Siren |
| 7 | Test Reports |
| 8 | Program, Download, & Log Full |

**Segment #2** (Circle Numbers To Program)

| | |
|---|---|
| 1 | Tampers |
| 2 | Short Circuit |
| 3 | Sensor Lost |
| 4 | Sensor Low Battery |
| 5 | Expander Trouble |
| 6 | Failure To Communicate |
| 7 | Reserved |
| 8 | Reserved |

| | | | | |
|---|---|---|---|---|
| 12 | 15 | PHONE #3 | ***14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14*** | __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ |
| 13 | 15 | PHONE #3, ACCOUNT CODE | ***10 - 10 - 10 - 10 - 10 - 10*** | _ _ _ _ _ _ |
| 14 | 15 | PHONE #3, REPORTING FORMAT | ***0*** | _ |
| 15 | 15 | PHONE #3, DIAL ATTEMPTS<br>BACKUP CONTROL | ***8***<br>***0*** | _<br>_ |
| 16 | 15 | PHONE #3, SELECTING EVENTS TO REPORT TO PHONE #3 | | |

**Segment #1** (Circle Numbers To Program)

| | |
|---|---|
| 1 | Alarms and Restores |
| 2 | Open/Close |
| 3 | Bypass |
| 4 | Zone Trouble |
| 5 | Power Trouble (AC Failure or Low Battery) |
| 6 | Siren |
| 7 | Test Reports |
| 8 | Program, Download, & Log Full |

**Segment #2** (Circle Numbers To Program)

| | |
|---|---|
| 1 | Tampers |
| 2 | Short Circuit |
| 3 | Sensor Lost |
| 4 | Sensor Low Battery |
| 5 | Expander Trouble |
| 6 | Failure To Communicate |
| 7 | Reserved |
| 8 | Reserved |

| LOC | PG | DESCRIPTION | DEFAULT | DATA |
|---|---|---|---|---|

**18 — 16 — FORMAT OVERRIDE**

**Segment #1** (Circle Numbers To Program)

| | |
|---|---|
| 1 | On = 1800hz transmit; Off = 1900hz |
| 2 | On = 2300hz handshake; Off = 1400hz. |
| 3 | On = cksum parity; Off = double round parity |
| 4 | On = 2 digit event code; Off = 1 digit code |
| 5 | Reserved. |
| 6 | Reserved. |
| 7 | On = 20 p.p.s.; Off = 10 or 40 p.p.s. |
| 8 | On = 10 p.p.s.; Off = 20 or 40 p.p.s. |

**Segment #2** (Circle Numbers To Program)

| | |
|---|---|
| 1 | On = pager format (no handshake required) |
| 2 | On = 1400/2300 handshake |
| 3 | Reserved |
| 4 | Reserved |
| 5 | On = Contact ID |
| 6 | On = SIA |
| 7 | On = Contact ID or 4+3 |
| 8 | On = DTMF |

Segments #3 & #4 RESERVED

| | | | | |
|---|---|---|---|---|
| 19 | 16 | DOWNLOAD ACCESS CODE | ***8-4-8-0-0-0-0-0*** | _ _ _ _ _ _ _ _ |
| 20 | 16 | RINGS TO ANSWER DOWNLOAD | ***8*** | _ |

**21 — 16 — DOWNLOAD CONTROL**

Segment #1 (Circle Numbers To Program)

| | |
|---|---|
| 1 | Enables two call answering machine defeat |
| 2 | Reserved |
| 3 | Requires callback before downloading |
| 4 | Shutdown control panel |
| 5 | Lock out local programming |
| 6 | Lock out communicator programming |
| 7 | Lock out download section |
| 8 | Enables callback at autotest interval |

| | | | | |
|---|---|---|---|---|
| 22 | 16 | CALLBACK PHONE NUMBER | ***14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14-14*** | __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ __ |

**23 — 16 — FEATURE SELECTION**

| Segment #1 | | Segment #2 | | Segment #3 | |
|---|---|---|---|---|---|
| 1 | Quick Arm | 1 | LED extinguish enable | 1 | Open/Close |
| 2 | Re-Exit | 2 | Require user code for bypassing zones | 2 | Bypass |
| ***3*** | ***Auto Bypass*** | 3 | Bypass sounder alert | 3 | Restore |
| 4 | Silent Panic | ***4*** | ***AC power/low battery sounder alert*** | 4 | Trouble |
| ***5*** | ***Audible Panic*** | 5 | Enables bypass toggle | 5 | Tamper |
| 6 | Auxiliary 1 | 6 | Enables silent auto arm | ***6*** | ***Cancel*** |
| 7 | Auxiliary 2 | 7 | Enables automatic instant | ***7*** | ***Recent Closing*** |
| 8 | Multi Keypress Tamper | 8 | Reserved | ***8*** | ***Exit Error*** |

| | | | | |
|---|---|---|---|---|
| 24 | 17 | ENTRY/EXIT TIMERS | | |
| | | Segment #1 (Entry Time #1) | ***30*** | |
| | | Segment #2 (Exit Time #1) | ***60*** | |
| | | Segment #3 (Entry Time #2) | ***30*** | |
| | | Segment #4 (Exit Time #2) | ***60*** | |
| 25 | 17 | ZONES 1-8, ZONE TYPES (Default Configuration) | ***3-5-6-6-6-6-6-6*** | _ _ _ _ _ _ _ _ |

**Standard (Default) Zone Types Pg 25**

| | | | |
|---|---|---|---|
| 1 | DAY ZONE | 11 | RESERVED |
| 2 | 24 HOUR AUDIBLE | 12 | INTERIOR FOLLOWER W/CROSS ZONE |
| 3 | ENTRY/EXIT DELAY 1 | 13 | INSTANT ENTRY GUARD |
| 4 | FOLLOWER W/ AUTO- BYPASS DISABLED | 14 | ENTRY/EXIT DELAY 1 W/GROUP BYPASS |
| 5 | INTERIOR FOLLOWER W/ AUTO- BYPASS | 15 | INTERIOR FOLLOWER W/GROUP BYPASS |
| 6 | INSTANT | 16 | INSTANT W/GROUP BYPASS |
| 7 | 24 HOUR SILENT | 17 | ENTRY/EXIT DELAY 1 W/TAMPER |
| 8 | FIRE | 18 | INTERIOR FOLLOWER W/TAMPER & AUTO-BYPASS |
| 9 | ENTRY/EXIT DELAY 2 | 19 | INSTANT W/TAMPER |
| 10 | 24 HOUR SILENT SUPERVISED | 20 | ENTRY/EXIT DELAY 2 W/TAMPER |

| LOC | PG | DESCRIPTION | DEFAULT | DATA |
|---|---|---|---|---|
| 37 | 17 | SIREN AND SYSTEM SUPERVISION | | |
| | | Segment #1 (Circle numbers to program) | | |
| | | 1 Reserved.<br>2 Reserved.<br>3 Siren blast at arming.<br>4 Siren blast at exit delay expiration.<br>5 Siren blast at closing kissoff.<br>6 Siren sounds during a cross zone verification time.<br>***7 Siren sounds for a tamper.***<br>8 Siren blast one time for wireless arming, two times for wireless disarming. (**Note**: Must be disabled for SIA CP-01 installations.) | | |
| | | Segment #2 (Circle numbers to program) | | |
| | | 1 Convert siren driver to voltage out.<br>2 Siren sounds for expander trouble (required for U.L.).<br>3 Immediate Restore by Zone.<br>4 Dynamic battery test performed upon arming.<br>5 Battery missing test performed every 12 seconds.<br>***6 Manual bell test performed during [✱]-[4] test function.***<br>7 Manual communicator test performed during [✱]-[4] test function.<br>8 Box tamper enabled. | | |
| | | Segment #3 (Circle numbers to program) | | |
| | | 1 Box Tamper report enabled.<br>2 AC Fail report enabled.<br>3 Low Battery report enabled.<br>4 Auxiliary power over current report enabled.<br>5 Siren supervision report enabled.<br>6 Reserved.<br>7 Reserved.<br>8 Expander trouble report enabled. | | |
| | | Segment #4 (Circle numbers to program) | | |
| | | 1 Failure To Communicate report enabled.<br>2 Log Full report enabled.<br>3 Autotest report enabled.<br>4 Start and End Programming report enabled.<br>5 End Download report enabled.<br>6 Sensor Low Battery report enabled.<br>7 Sensor Missing report enabled.<br>8 Reserved. | | |
| | | Segment #5 (Circle numbers to program) | | |
| | | 1 Lost Clock service LED enable.<br>2 Zone Doubling enable. (Requires additional devices, see page 7)<br>3 Disable on-board four zones.<br>4 Enables two trips on the same cross-zone to activate the alarm.<br>5 Disables bypass reports for force armed zones<br>6 Reserved.<br>7 Clock uses internal crystal.<br>8 Disable Temporal Siren on Fire. (**Do NOT disable for UL installations.**) | | |
| 38 | 18 | SWINGER SHUTDOWN COUNT | ***1*** | _ |

| LOC | PG | DESCRIPTION | DEFAULT | DATA |
|---|---|---|---|---|
| 39 | 18 | KEYPAD SOUNDER CONTROL | | |
| | | Segment #1 (Circle numbers to program) | | |
| | | 1 Reserved.<br>2 Reserved.<br>3 Keypad sounds upon AC Power Failure.<br>4 Keypad sounds upon Low Battery Detection.<br>5 Keypad sounds during Cross Zone Trip Time.<br>***6 Keypad sounds for Tamper Alarm.***<br>7 Reserved.<br>8 Keypad sounds for expander trouble (required for UL). | | |
| 40 | 18 | SYSTEM TIMERS | | |
| | | Segment #1 Dynamic Battery Test duration (0-255 min.) | ***0*** | _ |
| | | Segment #2 AC Failure report delay (0-255 minutes) | ***5*** | _ |
| | | Segment #3 Power Up Delay (0-60 seconds) | ***60*** | _ |
| | | Segment #4 Siren Time (1-255 minutes) | ***8*** | _ |
| | | Segment #5 Reserved | ***0*** | _ |
| | | Segment #6 Cross Zone Time (0-255 minutes) | ***5*** | _ |
| | | Segment #7 Chime Time in 50 mS increments (0-255) | ***3*** | _ |
| | | Segment #8 Dialer delay (15-255 seconds) | ***30*** | _ |
| | | Segment #9 Fire Alarm Verification Time (120-255 sec.) | ***0*** | _ |
| | | Segment #10 Listen-In Time (0-255 seconds) | ***0*** | _ |
| 41 | 19 | USER CODE REQUIREMENTS | | |
| | | Segment #1 (Circle numbers to program) | | |
| | | 1 Enables six-digit code option. All arm/disarm/Go To Program codes require six digits<br>2 Requires valid user code entry for [✱]-[9]-[8] and [✱]-[9]-[9] functions to work.<br>3 Enables Auto Cancel/Abort.<br>4 Enables Walk Test mode.<br>5-8 Reserved. | | |
| 42 | 19 | GO TO PROGRAM CODE | ***9-7-1-3-0-0*** | _ _ _ _ _ _ |
| 43 | 19 | GO TO PROGRAM CODE AND AUTHORIZATION | | |
| | | Segment #1 (Circle numbers to program) | | |
| | | 1 Reserved.<br>2 Enables "Go To Program Code" as an arm only code.<br>3 Enables "Go To Program Code" as an arm only after closing.<br>4 Enables "Go To Program Code" as a master arm/disarm code (can change user codes)<br>5 Enables "Go To Program Code" as an arm/disarm code.<br>6 Enables "Go To Program Code" to bypass zones.<br>7 Enables "Go To Program Code" opening and closing reports.<br>8 Reserved. | | |
| 44 | 19 | DURESS CODE | ***15-15-15-15-15-15*** | _ _ _ _ _ _ |
| 46 | 19 | AUXILIARY OUTPUTS 1 & 2 SPECIAL TIMING | | |

| Segments | 1 | 2 |
|---|---|---|
| Auxiliary output timed in minutes. | 1 | 1 |
| Auxiliary output to latch. | 2 | 2 |
| ***Auxiliary output to stop timing upon user code entry.*** | ***3*** | ***3*** |
| Auxiliary output to activate only between closing and opening time. | 4 | 4 |
| Auxiliary output to activate only between opening and closing time. | 5 | 5 |
| Invert auxiliary output (0 volts going to 12 volts when activated). | 6 | 6 |
| Reserved | 7 | 7 |
| Reserved | 8 | 8 |

| LOC | PG | DESCRIPTION | DEFAULT | DATA |
|---|---|---|---|---|
| 47 | 19 | AUXILIARY OUTPUT #1, EVENT & TIME | | |
| | | **Segment #1:** Program the event number for output #1. | ***0=Burglary alarm*** | |
| | | **Segment #2:** Program the timing for output #1 here . | ***10 seconds*** | |
| 48 | 19 | AUXILIARY OUTPUT #2, EVENT & TIME | | |
| | | **Segment #1:** Program the event number for output #2. | ***1=Fire alarm*** | |
| | | **Segment #2:** Program the timing for output #2 here . | ***10 seconds*** | |
| 51 | 20 | AUTOTEST CONTROL | | |
| | | **Segment #1:** Program a "1" if the interval is hours, a "0" if in days. Add a "2" to suppress the daily test or a "3" to suppress the hourly test. | ***0*** | |
| | | **Segment #2:** Program the autotest interval from 1-255 days or hours. | ***24*** | |
| | | **Segment #3:** Program the autotest report in 24 hour time format. | ***2*** | |
| | | **Segment #4:** Program the autotest report time, minutes after the hour. | ***0*** | |
| 52 | 21 | OPENING TIME | | |
| | | **Segment #1:** Program the hour of the opening time. | ***8*** | |
| | | **Segment #2:** Program the minutes after the hour of the opening time. | ***0*** | |
| 53 | 21 | CLOSING TIME / AUTO ARMING TIME | | |
| | | **Segment #1:** Program the hour of the closing time/auto arming time. | ***20*** | |
| | | **Segment #2:** Program the minutes after hour of closing / auto arming time. | ***0*** | |
| 54 | 21 | DAYS OF THE WEEK SYSTEM IS OPEN | | |
| | | ***1 Sunday*** ***2 Monday*** ***3 Tuesday*** ***4 Wednesday*** ***5 Thursday*** ***6 Friday*** ***7 Saturday*** ***8 Reserved*** | | |
| 55 | 21 | DAYS OF THE WEEK "AUTO ARMING" WILL OCCUR | | |
| | | 1 Sunday 2 Monday 3 Tuesday 4 Wednesday 5 Thursday 6 Friday 7 Saturday 8 Reserved | | |

## LOC 56 - 83 COMMUNICATOR CODES FOR SLOW SPEED FORMATS ONLY

| LOC | PG | DESCRIPTION | DEFAULT | DATA |
|---|---|---|---|---|
| 56 | 22 | RESTORE COMMUNICATOR CODE | ***14*** | _ |
| 57 | 22 | BYPASS COMMUNICATOR CODE | ***0*** | _ |
| 58 | 22 | TAMPER COMMUNICATOR CODE | ***0*** | _ |
| 59 | 22 | TROUBLE COMMUNICATOR CODE | ***0*** | _ |
| 60 | 22 | SENSOR LOW BATTERY COMMUNICATOR CODE | ***0*** | _ |
| 61 | 22 | SENSOR MISSING COMMUNICATOR CODE | ***0*** | _ |
| 62 | 22 | DURESS | ***0-0*** | _ _ |
| 63 | 22 | AUXILIARY 1 | ***0-0*** | _ _ |

| LOC | PG | DESCRIPTION | DEFAULT | DATA |
|---|---|---|---|---|
| 64 | 22 | AUXILIARY 2 | ***0-0*** | _ _ |
| 65 | 22 | KEYPAD PANIC | ***0-2*** | _ _ |
| 66 | 22 | KEYPAD MULTIPLE CODE ENTRY TAMPER | ***0-0*** | _ _ |
| 67 | 22 | BOX TAMPER / BOX TAMPER RESTORE | ***0-0-0-0*** | _ _ _ _ |
| 68 | 23 | AC FAIL / AC RESTORE | ***0-0-0-0*** | _ _ _ _ |
| 69 | 23 | LOW BATTERY / LOW BATTERY RESTORE | ***0-0-0-0*** | _ _ _ _ |
| 70 | 23 | POWER SHORT / POWER SHORT RESTORE | ***0-0-0-0*** | _ _ _ _ |
| 71 | 23 | BELL TAMPER / BELL TAMPER RESTORE | ***0-0-0-0*** | _ _ _ _ |
| 74 | 23 | EXPANDER TROUBLE / EXPANDER TROUBLE RESTORE | ***0-0-0-0*** | _ _ _ _ |
| 75 | 23 | FAILURE TO COMMUNICATE | ***0-0*** | _ _ |
| 76 | 23 | LOG FULL COMMUNICATOR CODE | ***0-0*** | _ _ |
| 77 | 23 | OPENING CODE COMMUNICATOR CODE | ***11*** | _ |
| 78 | 23 | CLOSING COMMUNICATOR CODE | ***12*** | _ |
| 79 | 23 | AUTOTEST COMMUNICATOR CODE | ***0-0*** | _ _ |
| 80 | 23 | RECENT CLOSING AND EXIT ERROR | ***0-0*** | _ _ |
| 81 | 24 | START PROGRAMMING / END PROGRAMMING | ***0-0-0-0*** | _ _ _ _ |
| 82 | 24 | END DOWNLOAD | ***0-0-0-0*** | _ _ _ _ |
| 83 | 24 | CANCEL COMMUNICATOR CODE | ***0*** | _ |

## CUSTOMIZING ZONE TYPES (GROUPS)

These locations are considered advanced programming and should only be changed with a thorough understanding of the operation of each bit. These locations are used to design or customize zones when the Standard Zones Types in Table 2.1 on page 25 do not fit your needs.

| | | | | |
|---|---|---|---|---|
| 110 | 24 | GROUP 1 ALARM EVENT CODE | ***8*** | _ |
| 111 | 24 | GROUP 1 CHARACTERISTIC SELECT | | |

**Segment #1** (Circle numbers to program)

| | | | |
|---|---|---|---|
| 1 | Fire (enable for fire zone) | 5 | Delay 1 zone (enable to follow Timer 1 Entry/Exit times) |
| 2 | 24 Hour (enable for non-fire 24 hour zone) | 6 | Delay 2 zone (enable to follow Timer 1 Entry/Exit times) |
| 3 | Reserved | 7 | Interior (Enable for auto bypass or stay arming) |
| 4 | Follower (enable for burg zones that are instant during non-entry times) | 8 | Local Only (enable if zone is not to be reported) |

**Segment #2** (Circle numbers to program)

| | | | |
|---|---|---|---|
| ***1*** | ***Keypad audible on alarm.*** | **5** | ***Bypassable.*** |
| ***2*** | ***Yelping siren on alarm.*** | 6 | Group Shunt. |
| 3 | Temporal siren on alarm. | 7 | Force Armable. |
| 4 | Chime. | 8 | Entry Guard. |

**Segment #3** (Circle numbers to program)

| | | | |
|---|---|---|---|
| 1 | RESERVED. | ***5*** | ***Dialer Delay zone.*** |
| 2 | Double End of Line Tamper zone. | ***6*** | ***Swinger zone.*** |
| ***3*** | ***Trouble zone (Day zone).*** | ***7*** | ***Restore reporting.*** |
| 4 | Cross Zone. | ***8*** | ***Listen-In.*** |

**THE DEFAULTS LISTED IN THE ODD NUMBERED LOCATIONS BELOW REPRESENT THE THREE SEGMENTS OF EACH OF THOSE LOCATIONS. USE THE THREE SEGMENT CHARTS FROM LOCATION 111 TO UNDERSTAND THESE DEFAULTS.**

| | | | | |
|---|---|---|---|---|
| 112 | 25 | GROUP 2 ALARM EVENT CODE | ***2*** | _ |
| 113 | 25 | GROUP 2 CHARACTERISTIC SELECT | ***2-125-78*** | |
| 114 | 25 | GROUP 3 ALARM EVENT CODE | ***7*** | _ |
| 115 | 25 | GROUP 3 CHARACTERISTIC SELECT | ***5-1245-5678*** | |
| 116 | 25 | GROUP 4 ALARM EVENT CODE | ***5*** | _ |
| 117 | 25 | GROUP 4 CHARACTERISTIC SELECT | ***45-125-5678*** | |
| 118 | 25 | GROUP 5 ALARM EVENT CODE | ***5*** | _ |
| 119 | 25 | GROUP 5 CHARACTERISTIC SELECT | ***457-125-5678*** | |
| 120 | 25 | GROUP 6 ALARM EVENT CODE | ***4*** | _ |
| 121 | 25 | GROUP 6 CHARACTERISTIC SELECT | ***0-1245-5678*** | |
| 122 | 25 | GROUP 7 ALARM EVENT CODE | ***0*** | _ |
| 123 | 25 | GROUP 7 CHARACTERISTIC SELECT | ***2-0-78*** | |
| 124 | 25 | GROUP 8 ALARM EVENT CODE | ***1*** | _ |
| 125 | 25 | GROUP 8 CHARACTERISTIC SELECT | ***1-13-378*** | |
| 126 | 25 | GROUP 9 ALARM EVENT CODE | ***7*** | _ |
| 127 | 25 | GROUP 9 CHARACTERISTIC SELECT | ***6-1245-5678*** | |
| 128 | 25 | GROUP 10 ALARM EVENT CODE | ***2*** | _ |
| 129 | 25 | GROUP 10 CHARACTERISTIC SELECT | ***24-5-78*** | |
| 130 | 25 | GROUP 11 ALARM EVENT CODE | ***3*** | _ |
| 131 | 25 | GROUP 11 CHARACTERISTIC SELECT | ***3-0-0*** | |
| 132 | 25 | GROUP 12 ALARM EVENT CODE | ***5*** | _ |
| 133 | 25 | GROUP 12 CHARACTERISTIC SELECT | ***457-125-45678*** | |
| 134 | 25 | GROUP 13 ALARM EVENT CODE | ***4*** | _ |
| 135 | 25 | GROUP 13 CHARACTERISTIC SELECT | ***0-12458-5678*** | |
| 136 | 25 | GROUP 14 ALARM EVENT CODE | ***7*** | _ |
| 137 | 25 | GROUP 14 CHARACTERISTIC SELECT | ***5-12456-5678*** | |
| 138 | 25 | GROUP 15 ALARM EVENT CODE | ***5*** | _ |
| 139 | 25 | GROUP 15 CHARACTERISTIC SELECT | ***457-1256-5678*** | |
| 140 | 25 | GROUP 16 ALARM EVENT CODE | ***4*** | _ |
| 141 | 25 | GROUP 16 CHARACTERISTIC SELECT | ***0-12456-5678*** | |
| 142 | 25 | GROUP 17 ALARM EVENT CODE | ***7*** | _ |
| 143 | 25 | GROUP 17 CHARACTERISTIC SELECT | ***5-1245-25678*** | |
| 144 | 25 | GROUP 18 ALARM EVENT CODE | ***5*** | _ |
| 145 | 25 | GROUP 18 CHARACTERISTIC SELECT | ***457-125-25678*** | |
| 146 | 25 | GROUP 19 ALARM EVENT CODE | ***4*** | _ |
| 147 | 25 | GROUP 19 CHARACTERISTIC SELECT | ***0-1245-25678*** | |
| 148 | 25 | GROUP 20 ALARM EVENT CODE | ***7*** | _ |
| 149 | 25 | GROUP 20 CHARACTERISTIC SELECT | ***6-1245-25678*** | |

## APPENDIX 1 REPORTING FIXED CODES IN CONTACT ID AND SIA

The table below list the event codes sent for the following reports (if enabled) when using CONTACT ID or SIA formats.

| REPORT | CONTACT ID | SIA |
|---|---|---|
| MANUAL TEST | 601 | RX |
| AUTOTEST | 602 | RP |
| OPEN (user number) | 401 | OP |
| CLOSE (user number) | 401 | CL |
| CANCEL (user number) | 406 | OC |
| DOWNLOAD COMPLETE | 412 | RS |
| START PROGRAM | 627 | LB |
| END PROGRAM | 628 | LX |
| RECENT CLOSE (user number) | 401 | CR |
| EXIT ERROR (user number) | 457 | EE |
| EVENT LOG FULL | 605 | JL |
| FAIL TO COMMUNICATE | 354 | RT |
| EXPANDER TROUBLE (device number) | 333 | ET |
| EXPANDER RESTORE (device number) | 333 | ER |
| SIREN TAMPER (device number) | 321 | YA |
| SIREN RESTORE (device number) | 321 | YH |
| AUX POWER OVER CURRENT (device number) | 312 | YP |
| AUX POWER RESTORE (device number) | 312 | YQ |
| LOW BATTERY (device number) | 309 | YT |
| LOW BATTERY RESTORE (device number) | 309 | YR |
| AC FAIL (device number) | 301 | AT |
| AC RESTORE (device number) | 301 | AR |
| BOX TAMPER (device number) | 137 | TA |
| BOX TAMPER RESTORE (device number) | 137 | TR |
| KEYPAD TAMPER | 137 | TA |
| KEYPAD PANIC (audible) | 120 | PA |
| KEYPAD PANIC (silent) | 121 | HA |
| DURESS | 121 | HA |
| KEYPAD AUXILIARY 1 | 110 | FA |
| KEYPAD AUXILIARY 2 | 100 | MA |
| RF SENSOR LOST (zone number) | 381 | *T |
| RF SENSOR RESTORE (zone number) | 381 | *R |
| SENSOR LOW BATTERY (zone number) | 384 | XT |
| SENSOR BATTERY RESTORE (zone number) | 384 | XR |
| ZONE TROUBLE (zone number) | 380 | *T |
| ZONE TROUBLE RESTORE (zone number) | 380 | *R |
| ZONE TAMPER (zone number) | 137 | TA |
| ZONE TAMPER RESTORE (zone number) | 137 | TR |
| ZONE BYPASS (zone number) | 570 | *B |
| BYPASS RESTORE (zone number) | 570 | *U |

**THE NUMBER IN PARENTHESES FOLLOWING THE EVENT IS THE NUMBER THAT WILL BE REPORTED AS THE ZONE NUMBER. IF THERE ARE NO PARENTHESES, THE ZONE WILL BE "0". SEE PAGE 35 FOR THE DEVICE NUMBERS.**

*** The character transmitted in this slot will be the first character from the event code of the zone that is bypassed or in trouble. (See locations 110 - 141)**

## APPENDIX 2 REPORTING ZONE CODES IN SIA OR CONTACT ID

The NX-4 has the ability to report SIA level 1 transmissions to either or both phone numbers. Each report in SIA consists of an Event Code and a Zone or User ID. The Zone ID will be the zone number that is in alarm. The event code will come from the chart below and be programmed in the configuration group event code.

| Programmed Event Code | SIA Code | Description |
|---|---|---|
| 0 | HA | Holdup Alarm |
| 1 | FA | Fire Alarm |
| 2 | PA | Panic alarm |
| 3 | BA | Burglary Alarm |
| 4 | BA | Burglary Alarm |
| 5 | BA | Burglary Alarm |
| 6 | UA | Untyped Alarm |
| 7 | BA | Burglary Alarm |
| 8 | BA | Burglary Alarm |
| 9 | UA | Untyped Alarm |
| 10 | HA | Holdup Alarm |
| 11 | MA | Medical Alarm |
| 12 | PA | Panic alarm |
| 13 | TA | Tamper Alarm |
| 14 | RP | Periodic Test |
| 15 | GA | Gas Alarm |
| 16 | KA | Heat Alarm |
| 17 | WA | Water Alarm |
| 18 | QA | Emergency Alarm |
| 19 | SA | Sprinkler Alarm |
| 20 | ZA | Freeze Alarm |

The NX-4 has the ability to report Ademco Contact ID transmissions. Each report in Contact ID consists of an Event Code and a Zone ID. The zone ID is the zone that created the alarm. The event code will come from the chart below and be programmed in the configuration group event code.

| Programmed Event Code | Contact ID Code | Description |
|---|---|---|
| 0 | 122 | Silent Panic |
| 1 | 110 | Fire Alarm |
| 2 | 120 | Panic alarm |
| 3 | 130 | Burglary Alarm |
| 4 | 131 | Perimeter Alarm |
| 5 | 132 | Interior Alarm |
| 6 | 133 | 24 Hour Burglary |
| 7 | 134 | Entry Alarm |
| 8 | 135 | Day/Night Alarm |
| 9 | 150 | Non Burglary 24 Hour |
| 10 | 121 | Duress Alarm |
| 11 | 100 | Medical Alarm |
| 12 | 123 | Audible Panic Alarm |
| 13 | 137 | Tamper Alarm |
| 14 | 602 | Periodic Test |
| 15 | 151 | Gas Detected |
| 16 | 158 | High Temp |
| 17 | 154 | Water Leakage |
| 18 | 140 | General Alarm |
| 19 | 140 | General Alarm |
| 20 | 159 | Low Temp |

## APPENDIX 3 EXPANDER NUMBERS FOR REPORTING EXPANDER TROUBLE

The tables below list the device numbers that will be reported for trouble conditions.

| Device | Device # reported |
|---|---|
| NX-4 Control Panel | 0 |
| NX-534E Two Way Listen-In | 64 |
| NX-540E "Operator" | 40 |
| NX-582E AES Interface | 77 |
| NX-591E Cellemetry Interface | 76 |

See pages 33 - 34 for possible report codes.

### KEYPADS

| Keypad | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Device # | 192 | 200 | 208 | 216 | 224 | 232 | 240 | 248 |

**REMOTE POWER SUPPLY** (NX-320E)

| Address & Dip Switch Setting | |
|---|---|
| **84** (All switches off) | **88** (Switch 3 on) |
| **85** (Switch 1 on) | **89** (Switch 1 & 3 on) |
| **86** (Switch 2 on) | **90** (Switch 2 & 3 on) |
| **87** (Switch 1 & 2 on) | **91** (All switches on) |

**OUTPUT MODULE** (NX-508E)

| Address & Dip Switch Setting | |
|---|---|
| **24** (Switch 1 & 2 on) | **28** (Switch 1,2,&3 on) |
| **25** (Switch 3 on) | **29** (All switches off) |
| **26** (Switch 1 & 3 on) | **30** (Switch 1 on) |
| **27** (Switch 2 & 3 on) | **31** (Switch 2 on) |

**WIRELESS RECEIVER** (NX-448E)

| Switch Setting | Expander # reported |
|---|---|
| All switches off | 35 |
| Switch 1 on | 32 |
| Switch 2 on | 33 |
| Switch 1 & 2 on | 34 |

### KEYPAD MAXIMUM WIRE RUN

**(Note:** These numbers are for one keypad at the end of the wire. When connecting more than one keypad to the end of the wire, a higher gauge wire will be required.)

| | WHEN CONNECTED TO NX-4 | WHEN CONNECTED TO NX-320E |
|---|---|---|
| **Length in feet** | **Wire Gauge** | **Wire Gauge** |
| **250** | **24** | **22** |
| **500** | **20** | **18** |
| **1000** | **18** | **16** |
| **1500** | **16** | **14** |
| **2500** | **14** | **12** |

TRANSMISSION OF THE FIRE ALARM SIGNAL TO A FIRE ALARM HEADQUARTERS OR CENTRAL STATION SHALL BE PERMITTED ONLY WITH THE APPROVAL OF THE LOCAL AUTHORITY HAVING JURISDICTION. THE BURGLAR ALARM SIGNAL SHALL NOT BE TRANSMITTED TO A POLICE EMERGENCY NUMBER. EQUIPMENT IS TO BE INSTALLED IN ACCORDANCE WITH NFPA (985,55.1.P).

# NETWORX NX-4

GLADEWATER, TEXAS

**SIA CP-01 CLASSIFIED MINIMUM SYSTEM REQUIREMENTS:**
**~ 1 Control Panel and 2 Keypads**

*This unit provides Residential fire alarm service when installed according to ANSI/NFPA 72-1993 (National Fire Protection Association, Batterymarch Park, Quincy, MA 02269) This unit provides Grade A Residential Burglar alarm service. In conjunction with the NX-003-C enclosure, this unit also provides the following Commercial Burglar alarm service: Grade A Local, Police Connect with Basic Line Security, and Grades B & C Central Station.*

THIS LED IS FOR PROPER CIRCUIT OPERATION ONLY.

LED3

**WARNING**
TO PREVENT RISK OF ELECTRICAL SHOCK, ALWAYS DISCONNECT THE TELEPHONE LINE PRIOR TO SERVICING.

BLACK RED

12 VOLT 4 AH OR 6.5 AH BATTERY

BATTERY CAPACITY FOR EMERGENCY STANDBY AT LEAST 4 HOURS. CONTROL PANEL DRAWS 60mA IN STANDBY.

Suggested Battery Replacements: Panasonic #LCR12V4BP or Yuasa #NP4-12

AUDIO TAP

**U.L. INSTALLATIONS**
The Class 2, Class 3, and power-limited fire alarm circuits must be installed using CL3, CL3R, or CL3P, or substitute cable permitted by National Electrical Code ANSI/NFPA 70 and the Class 2, Class 3 and power-limited fire alarm circuit conductors extending beyond the cable jacket must be separated a minimum of ¼ inch or by non-conductive tubing or non-conductive barrier from all other conductors.

DATA TAP

IF BOX TAMPER IS ENABLED IN LOCATION 37, CONNECT A NORMALLY CLOSED SWITCH TO THESE PINS.

R1 GREY
R RED
T GREEN
T1 BROWN
TO TELCO NETWORK RJ31X

TRANSFORMER PART #51-15000008
NX848TRV1
MODEL #R96-0301AT
600 OHM

120V AC 60Hz PRIMARY 3.5 AMP MAX.

DO NOT CONNECT 120 VAC TO TERMINAL STRIP.

UL LISTED TRANSFORMER 16.5V 25, 40, OR 50 VA CLASS II. DO NOT CONNECT TO A RECEPTACLE THAT IS CONTROLLED BY A SWITCH.

THE TOTAL STANDBY CURRENT DRAWN FROM TERMINALS SMOKE+, KEYPAD POS AND AUX PRW+, WHEN ADDED TOGETHER, MUST NOT EXCEED. 700mA WITH A 40 or 50VA TRANSFORMER. 400mA WITH A 25VA TRANSFORMER.

**LIGHTNING PROTECTION**
THE CONTROL PANEL MUST BE EARTH GROUNDED FOR LIGHTNING PROTECTION TO WORK EFFECTIVELY. THE GROUND CONNECTION SHOULD BE TIED TO A VERIFIED COLD WATER PIPE OR A DEDICATED METAL ROD 6' TO 10' LONG. USE MINIMUM 14 GAUGE WIRE.

CURRENT LIMITED TO 2.5 AMP MAXIMUM.

BUILT IN SIREN DRIVER FOR 15 OR 30 WATT SPEAKERS 4,8 OR 16 OHM LOAD.

AC
AC
EARTH
AUX 1
SIREN + –
COM (Supervised)
SMOKE+
AUX2
DATA (Supervised)
COM (Aux Pwr -)
POS (Aux Pwr +)

SMOKE+ TERMINAL IS CURRENT LIMITED TO 250 mA. KEYPAD + TERMINAL IS LIMITED TO 1 AMP. UNDER FULL-LOAD, THE CONTROL PANEL NO LONGER PROCESSES SENSOR TRIPS AT 9.25 VOLTS.

ALL CIRCUITS ARE CLASS 2 POWER LIMITED, EXCEPT BATTERY CIRCUIT.

FOR VOLTAGE OUTPUT PROGRAM LOCATION 37, SEGMENT 2, FEATURE 1.

TO ADDITIONAL KEYPADS AND EXPANSION DEVICES

4
COM
3
2
COM
1
ZONES

ALL ZONE INPUTS ARE SUPERVISED.

MAX TOTAL WIRE RUN IS 2500'.
MAX NUMBER OF DEVICES IS 8 KEYPADS AND 1 OTHER DEVICE.

**4 WIRE SMOKE DETECTOR**

TO SMOKE + TERMINAL
TO COMMON
ANY ZONE TERMINAL
TO ZONE COMMON
N.O. ALARM CONTACTS
RED
BLACK
VIOLET
3.3K E.O.L RESISTOR
DETECTOR

U.L. LISTED E.O.L. SUPERVISION RELAY (ESL #204A or Equivalent).

USE PART #EOL33

**NETWORX KEYPAD PART #**

| | | |
|---|---|---|
| NX-108E | NX-116E | NX-124E |
| NX-1208E | NX-1248E | NX-148E |
| NX-1308E | NX-1316E | NX-1324E |
| NX-1508E | NX-1516E | |

MAX 8 KEYPADS AND 1 OTHER DEVICE

ANY ZONE TERMINAL / ANY COM TERMINAL
6.98K E.O.L. (5-8)
3.74K E.O.L. (1 - 4)

DOUBLED ZONE CONFIGURATION. THE 3.74K RESISTOR IS FOR ZONES 1 - 4 THE 6.98K RESISTOR IS FOR ZONES 5 - 8
**** IF A DOUBLED ZONE IS USED AS A FIRE ZONE THE HIGH ZONE (5 - 8) IS NOT USABLE.*

ANY ZONE TERMINAL / ANY COM TERMINAL
3.3K E.O.L.
TAMPER CONTACT
3.3K E.O.L.

EUROPEAN DOUBLE E.O.L. CONFIGURATION

ANY ZONE TERMINAL / ANY COM TERMINAL
3.74K E.O.L.

DOUBLED ZONE CONFIGURATION USED AS A FIRE ZONE

ANY ZONE TERMINAL / ANY COM TERMINAL
3.3K E.O.L.

NORMALLY OPEN CONTACT WITH E.O.L. RESISTOR

ANY ZONE TERMINAL / ANY COM TERMINAL
3.3K E.O.L.

NORMALLY CLOSED CONTACT WITH E.O.L. RESISTOR

ANY ZONE TERMINAL / ANY COM TERMINAL
3.3K E.O.L.
3.3K E.O.L.

2 NORMALLY OPEN CONTACT AND 2 NORMALLY CLOSED CONTACT WITH E.O.L. RESISTOR

ANY ZONE TERMINAL / ANY COM TERMINAL
3.3K E.O.L.

1 NORMALLY OPEN CONTACT AND 1 NORMALLY CLOSED CONTACT WITH E.O.L. RESISTOR

**E.O.L RESISTORS**

DOUBLE E.O.L. ZONES 1- 4.
BRN
BRN
YEL
VIOLET
ORG
3.74K

DOUBLE E.O.L. ZONES 5 - 8.
BRN
BRN
GRAY
WHT
BLUE
6.98K

SINGLE ZONE E.O.L. For UL Systems, use #EOL33
GOLD
RED
ORG
ORG
3.3K

28-0218 (Feb 2004)

## TERMINAL DESCRIPTIONS

| TERMINAL | DESCRIPTION |
|---|---|
| **R1** | House Telephone Ring (Grey). |
| **R** | Telephone Ring (Red). |
| **T** | Telephone Tip (Green). |
| **T1** | House Telephone Tip (Brown). |
| **AC** | AC input. Connect to a 16.5V 25, 40 or 50 VA Class ll U.L. approved transformer. |
| **EARTH** | Earth Ground. Connect to a cold water pipe or a 6 to 10 foot driven rod. |
| **AUX 1** | Connect negative lead of low current device [relay, LED (install 1K Ω resistor in series with LED), etc.]. Connect positive lead of device to KEYPAD +. Current is limited to 250mA when output is negative, and 250$\mu$A when output is positive. |
| **SIREN** | If used as a siren output (default), the speaker rating should be 15 watt at 8 or 16 ohm, or 30/40 watt at 4, 8, or 16 ohms. If voltage output is selected in location 37, this output becomes voltage output, 12VDC, 1 Amp maximum load. **NOTE: A 3.3K Ω resistor may be required across the bell terminals when a 12 VDC siren is used. If no resistor is used, you may experience voltage leakage into the siren, which will cause these devices to output a small signal.** |
| **COM** | Connect negative wire of siren/speaker or voltage output devices. |
| **SMOKE+** | Smoke detector power 12VDC, 250 mA maximum (For those jurisdictions which allow the Priority zone to be used with smoke detectors.) |
| **AUX 2** | Connect negative lead of low current device [relay, LED (install 1K Ω resistor in series with LED), etc.]. Connect positive lead of device to KEYPAD +. Current is limited to 250mA when output is negative, and 250$\mu$A when output is positive. |
| **KEYPAD DATA** | Connect to the data terminal on the keypads and the expanders. MAXIMUM: 8 keypads + 1 other device. |
| **COM AUX PWR -** | Connect to the Common terminal on the keypads, expanders, and other power devices. |
| **POS AUX PWR +** | Connect to the Positive terminal on the keypads, expanders, and other power devices. This terminal is limited to 1 amp total current. |
| **ZONE 4** | Connect to one side of zone 4 loop. Connect the other side to com terminal. Open or short causes alarm. |
| **COM** | Common (-) terminal for zones 3 & 4. |
| **ZONE 3** | Connect to one side of zone 3 loop. Connect the other side to com terminal. Open or short causes alarm. |
| **ZONE 2** | Connect to one side of zone 2 loop. Connect the other side to com terminal. Open or short causes alarm. |
| **COM** | Common (-) terminal for zones 1 & 2. |
| **ZONE 1** | Connect to one side of zone 1 loop. Connect the other side to com terminal. Open or short causes alarm. |

**IMPORTANT!**

1. If separate power supplies are necessary to accommodate additional devices, safety standards require that each power supply be prominently marked with adequate instructions for removing all power from the unit.
2. Dispose of used batteries according to the manufacturer's instructions and/or local government authorities.
3. Installation personnel should thoroughly read and understand the installation instructions and the users manuals for the panel and all the accessories to be included with the system before attempting to install a security system.

**WARNING!**

Replace only with Panasonic #LC12V4BP or Yuasa #NP4-12 battery. Observe polarity when installing a new battery. Installing the battery backwards may cause damage to the panel. There is a risk of explosion if the battery is replaced with an incorrect type.

**NOTE**

Electrical codes will vary depending upon the country and city where the system is installed. It is the installer's responsibility to ensure that the electrical installation is safe and conforms to all applicable codes, laws, or regulations. Only qualified persons should connect this device to the mains supply.

# Notices *(Applies to products which have the CE mark attached)*

**DECLARATION OF CONFORMITY**

**Manufacturer's Name:** Caddx Controls
**Manufacturer's Address:** 1420 N. Main Street
Gladewater, TX
75647

**EU Representative:** Interlogix Europe

**Product Identification**

**Product:** **NetworX**
**Model:** **NX-4**
**Brand:** **CADDX**

**R&TTE Directive**

See EMC and LVD tests below

**EMC Directive**

**EN50081-1**
**EN50130-4**
**EN55022**
**EN60950**
**EN61000-3-2**
**EN61000-3-3**

**LVD Directive**

EN 60950: 1999-4 3rd edition

**Means of Conformity**

We declare under our sole responsibility that this product is in conformity with Directive 1999/5/EC (R&TTE); Directive 73/23/EEC (LVD); and Directive 89/336/EEC (EMC) and based on test results using (non)-harmonized standards in accordance with the Directives mentioned.

**Additional Tests**

This equipment has been tested and found to comply with the following standards (which are no longer required for compliance).

**Network Compatibility Declaration**

We declare under our sole responsibility that this product is designed to work with the networks in the countries marked with a check (✓) and may have interworking problems with the countries that are not checked. Due to the inherent differences in the individual PSTNs, certain software settings may need to be adjusted on a country-to-country basis. If it is desired to use this equipment on a network other than the one on which it was originally installed, you should contact your equipment supplier.

| | |
|---|---|
| (✓) Austria | (_) Liechtenstein |
| (✓) Belgium | (✓) Luxembourg |
| (✓) Denmark | (✓) Netherlands |
| (✓) Finland | (✓) Norway |
| (✓) France | (✓) Poland |
| (✓) Germany | (✓) Portugal |
| (✓) Greece | (✓) Spain |
| (✓) Iceland | (✓) Sweden |
| (✓) Ireland | (✓) Switzerland |
| (✓) Italy | (✓) United Kingdom |

**Telecom Approval Notice**

This equipment has been approved in accordance with the Council Decision 98/482/EC for pan-European, single terminal connection to the public switched telephone network (PSTN). However, due to the differences between the individual PSTNs provided in different countries, the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN network termination point. In the event of problems, you should contact your equipment supplier in the first instance.

**Electrical Requirements**

This device automatically adjusts to voltages within the range of 230 V 50/60 Hz.
Fuse: Type T 200mA 250 VAC

## LOCAL TELEPHONE COMPANY INTERFACE INFORMATION

### TELEPHONE CONNECTION REQUIREMENTS

Except for telephone company provided ringers, all connections to the telephone network shall be made through standard plugs and standard telephone company provided jacks or equivalent in such a manner as to allow for immediate disconnection of the terminal equipment. Standard jacks shall be so arranged that if the plug connected thereto is withdrawn, no interference to the operation of the equipment at the customers premises which remains connected to the telephone network, shall occur by reason of such withdrawal.

### INCIDENCE OF HARM

Should terminal equipment or protective circuitry cause harm to the telephone network, the telephone company shall, where practical, notify the customer that temporary discontinuance of service may be required. However, where prior notice is not practical, the telephone company may temporarily discontinue service if such action is deemed reasonable in the circumstances. In the case of such temporary discontinuance, the telephone company shall promptly notify the customer who will be given the opportunity to correct the situation. The customer also has the right to bring a complaint to the FCC if he feels the disconnection is not warranted.

### CHANGES IN TELEPHONE COMPANY EQUIPMENT OR FACILITIES

The telephone company may make changes in its communications facilities, equipment, operations, or procedures where such action is reasonably required and proper in its business. Should any such change render the customers terminal equipment incompatible with the telephone company facilities, the customer shall be given adequate notice to make modifications to maintain uninterrupted service.

### GENERAL

The FCC prohibits customer provided terminal equipment be connected to party lines.

### IMPORTANCE OF THE RINGER EQUIVALENCE NUMBER

The Ringer Equivalence Number (REN) of this device is 0.1B. This number is a representation of the electrical load that it applies to your telephone line.

### MALFUNCTION OF THE EQUIPMENT

In the event that the device should fail to operate properly, the customer shall disconnect the equipment from the telephone line to determine if it is the customer's equipment that is not functioning properly. If the problem is with the device, the customer shall discontinue use until it is repaired.

### EQUIPMENT INFORMATION

MANUFACTURER OF CONNECTING EQUIPMENT: **CADDX CONTROLS, INC.**
FCC REGISTRATION NUMBER: GCQUSA-33408-AL-E, RINGER EQUIVALENCE: 0.1 B

---

## CALIFORNIA STATE FIRE MARSHAL LISTING

| | |
|---|---|
| *LISTING No*: | 7167-1249:105 |
| *CATEGORY*: | Control Unit (Household) |
| *DESIGN*: | Model NX-4 combination household fire and burglary alarm control units. |
| *RATING*: | 120 VAC primary, 16.5 VAC secondary; 12 VDC standby |
| *INSTALLATION*: | In accordance with listee's printed installation instructions, NFPA 72, applicable codes & ordinances and in a manner acceptable to the authority having jurisdiction. The system must have the secondary power supply capable of operating the system for at least 24 hours (battery standby) in the normal condition and followed by not less than 4 minutes of alarm as required by code. |
| *APPROVAL*: | Listed as household fire alarm control unit for use with separately listed compatible initiating and indicating devices. The control unit can generate the three pulse temporal code pattern fire alarm signal (for total evacuation) as required per NFPA 72, 1996 Edition. |

## UNDERWRITERS LABORATORIES INFORMATION

The NetworX NX-4 holds the following listings from Underwriters Laboratories (US and Canada):

**Household Burglary (UL1023) (ORD-C1023-1974)**
**Household Fire (UL985) (CAN/ULC S545-M89)**
**Local Grade A Mercantile, Police Station Connect with Basic Line Security (UL609) (requires #NX-003-C enclosure) (CAN/ULC S303-M91)**
**Grade B & C Central Station Burglar Alarm Unit (UL1610) (CAN/ULC S304-M88)**
**Home Health Care Signaling (UL1637)**

When installing an NX-4 in compliance with Underwriters Laboratories, the following instructions must be observed:

- Initiating and indicating devices must be rated at 11.5 to 12.4 V DC residential, 12.0 V DC commercial.
- Force Arming and Auto Arming shall not be enabled.
- For residential fire applications, the indicating devices shall be a Wheelock 34T-12 or equivalent.
- The "Listen-In" feature shall not be enabled.
- The Siren/Bell Test shall be enabled. The auxiliary outputs controlling the audible device require a minimum cutoff time of 15 minutes for commercial burglary, 4 minutes for residential applications, or 30 minutes for commercial burglary for Canada.
- For residential fire installations, the Dynamic Battery Test time cannot exceed four (4) hours.
- Ringback shall be enabled on UL commercial burglary installations.
- On commercial burglary installations, the fire initiating circuits shall not be connected.
- The Entry-Guard feature shall be disabled.
- Group Bypassing shall be disabled.
- Delay before dial seizure shall be set to "0".
- Total current draw from aux power connections at terminal positions POS, AUX PWR, and SMOKE PWR must not exceed 400 mA.
- Remote Downloading shall not be used on UL listed systems.
- For residential burglary applications, the maximum entry and exit delay times shall be 45 and 60 seconds respectively. The exit delay time shall not exceed 60 seconds for commercial burglar alarm applications.
- The keyswitch option shall not be used.
- The telephone line monitor shall be enabled.
- The Telephone Line Cut delay shall not exceed 90 seconds.
- 24-hour communicator test transmission is required.
- For 24 hours of standby power using a 7.0 AH battery, limit auxiliary power load to 140 mA.
- For 24 hours of standby power using a 17.2 AH battery, limit auxiliary power load to 400 mA.
- The silent keypad option shall not be enabled.
- UL has only verified compatibility with the following listed DACRs and formats: Sure-Gard SG-MLR2-DG: 2,9,10,12,13,14; Silent Knight 9000 - 2,12; FBI - CP220FBI, 13; and Ademco 685: 2,11,12, and 13.
- For burglary installations, cross-zoned detectors shall overlap 100 percent in the area of coverage and similar coverage areas must be used. For example, interior protection is cross-zoned with interior protection, etc.
- Expander trouble must activate the siren (Loc 37, Segment 2, LED 2)
- For UL 1637, expander trouble must activate keypad sounder (Loc 39, Segment 1, LED 8)
- The keypad used with wireless receivers and hardwire expansion must be able to display all zones in a system.
- For Canadian installations, the Class II transformer secure tab shall not be employed.

### MINIMUM SYSTEM CONFIGURATIONS FOR UL INSTALLATIONS
### (Residential Fire, Residential Burglary, Commercial Burglary)

- The NetworX NX-4 panel is necessary to initiate Residential and Commercial installations.
- At least one compatible keypad is needed for all applications.
- At least one bell fixture is required for all applications, except Grade C Central Station. For Grade A Local, the AD10-12 bell and Grade A bell housing shall be used.
- Commercial UL applications require #NX-003-C metal enclosure. Supplied screws to be used.
- A minimum of two (2) keypads are required for Home Health applications and each keypad must be set to a unique address.
- The wireless devices are only UL listed for residential applications.
- The DACT shall be enabled for all commercial burglary applications.

# SIA SYSTEM REQUIREMENTS (ANSI-SIA CP-01)

**To meet SIA CP-01 requirements –**

- **Minimum System Requirements: 1 control panel; 2 keypads**
- **Remote arming shall NOT be enabled in SIA classified installations.**
- **Off-premise transmission must be in the SIA format.**
- **The Abort window and Entry Delay must not exceed 1 minute.**
- **CAUTION – A call waiting cancel on a non-call waiting line will prevent successful connection to the central station.**

| CP-01 Feature Description | Feature Description as shown in manual | Program Loc | Seg / Opt | Factory Default | CP-01 Required Setting | |
|---|---|---|---|---|---|---|
| Exit Time | Exit 1 Delay | **24** | ***2*** | 60 | 45 – 240 sec. | |
| | Exit 2 Delay | **24** | ***4*** | 60 | 45 – 240 sec. | |
| Progress Annuncation / Disable – for Silent Exit | Silent Keypad Option | **✱ 9 3** | ***2*** | All annunciators enabled | Allowed (individual keypads may be disabled) | |
| Exit Time Restart | This feature is non-programmable in the panel. | | | | Enabled | |
| Auto Stay Arm on Unvacated Premises | Auto Bypass | **23** | ***1 / 3*** | Enabled | Enabled | |
| Exit Time and Progress Annunciation / Disable – for Remote Arm | This feature is non-programmable in the panel. -- Exit time and progress are always enabled. | | | | Enabled (may be disabled for remote arming) | |
| Entry Delay(s) | Entry 1 Delay | **24** | ***1*** | 30 | 30 – 240 sec. | **NOTE:** *Combined Abort window and Entry Delay must not exceed 1 minute.* |
| | Entry 2 Delay | **24** | ***3*** | 30 | 30 – 240 sec. | |
| Abort Window – for Non-Fire Zones | Dialer Delay | **40** | ***8*** | 30 | Enabled (may be disabled by zone/ zone type) | |
| Abort Window Time – for Non-Fire Zones | Dialer Delay | **40** | ***8*** | 30 | 15 – 45 sec. | |
| Abort Annunciation | This feature is non-programmable in the panel. -- Flashing Cancel LED goes off when disarming. | | | | Enabled | |
| Cancel Annunciation | Cancel | **23** | ***3 / 6*** | Enabled | Enabled | |
| Duress Feature | Duress | **44** | | Disabled | Disabled | |
| Cross Zoning | 2 Trips on Cross Zone | **37** | ***5 / 4*** | Disabled | Required | |
| | Keypad sounds on Cross Zone trip | **39** | ***5*** | Disabled | | |
| | Zone Type Characteristic | **111** | ***3 / 4*** | Disabled | | |
| Programmable Cross Zoning Time | Cross Zone Time | **40** | ***6*** | 5 minutes | Allowed | |
| Swinger Shutdown | Swinger Shutdown Count | **38** | ***n/a*** | Enabled for 1 trip | For all non-fire zones, shut down at 1–2 trips | |
| Swinger Shutdown Disable | Swinger Shutdown Count | **38** | ***n/a*** | Enabled for 1 trip | Allowed | |
| Fire Alarm Verification | Fire Alarm Verification Time | **40** | ***9*** | Disabled | Required (depends on panel & sensors) | |
| Call Waiting Cancel | Must be programmed as part of the phone number | **0** | ***n/a*** | n/a | Required (depends on user phone line) | |
| *Default Changes (from prior versions):* | Recent Closing | **23** | ***3 / 7*** | Enabled | | |
| | Exit Error | **23** | ***3 / 8*** | Enabled | | |
| | Power Up Delay | **40** | ***3*** | 60 sec. | | |

## SPECIFICATIONS

| | |
|---|---|
| **OPERATING POWER** | **16.5 VAC 25, 40, or 50 VA Transformer** |
| **AUXILIARY POWER** | |
| **w/25 VA Transformer** | **12 VDC Regulated 500 mA** |
| **w/40 or 50 VA Transformer** | **12 VDC Regulated 1 AMP** |
| **LOOP RESISTANCE** | |
| **Standard Loop** | **300 Ohms Maximum** |
| **BUILT-IN SIREN DRIVER** | **2-tone (Temporal and Yelp)** |
| **LOOP RESPONSE** | **500mS** |
| **OPERATING TEMPERATURE** | **32 to 120 degrees F** |
| **LED KEYPAD** | |
| **Current Draw** | **130 mA max.** |
| **Zones Normal w/o Sounder** | **55 mA** |
| **Dimensions** | **6.4" Wide** |
| | **4.0" High** |
| | **1.1" Deep** |
| **NX-148E LCD KEYPAD** | |
| **Current Draw** | **110 mA max.** |
| **w/o Sounder** | **75 mA** |
| **Dimensions** | **6.4" Wide** |
| | **5.3" High** |
| | **1.0" Deep** |
| **METAL ENCLOSURE DIMENSION** | **9.25" Wide** |
| | **8.25" High** |
| | **3.50" Deep** |
| **SHIPPING WEIGHT** | **9 lbs.** |


**1420 N. MAIN STREET**
**GLADEWATER, TEXAS 75647**

| | | | |
|---|---|---|---|
| Main | 800-727-2339 | Technical Support | 800-727-2339 |
| Outside the US | 903-845-6941 | Tech Support Fax | 903-845-8409 |
| Main Fax | 903-845-6811 | Sales & Literature | 800-547-2556 |

Web: www.caddx.com
www.ge-security.com




UL approved for ANSI/SIA CP-01-2000